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ABSTRACT

This Massachusetts Senate committee study examined the current policies and procedures used by the University of Massachusetts at Amherst (UMA) to monitor, manage, and report on the activities of its faculty, in particular its faculty workload. The study had originally intended to analyze faculty workload in terms of instruction (teaching), research, and public service. Due to insufficient reporting systems on faculty activity, an examination of instructional activities alone was conducted and from this inferences relative to other duties were drawn. The study found that state appropriations to the university had been drastically reduced and that lost revenues had been replaced in part by the university through substantial increases in student tuition and fees; that faculty contact with students in traditional classroom settings appeared to have increased between academic years 1988-89 and 1991-92 despite reductions in the faculty workforce and enrollment; that the faculty at UMA spent between 29 and 98 percent of their work week on teaching activities; and that current faculty workload reporting systems at the University do not adequately report faculty activities especially those related to the research and public service mission of UMA. The report includes recommendations which focus on formalizing faculty workload policies. Appendixes contain information on instructional resources, recent faculty activity assessments, student faculty ratios, faculty contact hours, and a response from UMA. (JB)

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SENATE . . . . . No. 1785

The Commonwealth of Massachusetts

REPORT

OF THE

SENATE COMMITTEE ON

POST AUDIT AND OVERSIGHT

entitled

A REVIEW OF FACULTY WORKLOAD POLICIES

AND FACULTY WORKLOADS AT THE

UNIVERSITY OF MASSACHUSETTS AT AMHERST

(under the provisions of Section 63 of Chapter 3 of the General Laws, as most recently amended by Chapter 557 of the Acts of 1986.)

December 1992

HE 026 165

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Commonwealth of Massachusetts

MASSACHUSETTS SENATE

The Honorable William M. Bulger
President of the Senate

A REVIEW OF FACULTY WORKLOAD POLICIES AND FACULTY WORKLOADS AT THE UNIVERSITY OF MASSACHUSETTS AT AMHERST

(Senate 1785)

A Report of the

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Senator W. Paul White, Vice-Chairman
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Senator Robert A. Havern
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December 1992

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December 22, 1992.

Edward B. O'Neill
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State House, Room 208
Boston, MA 02133

Dear Mr. O'Neill:

Pursuant to M.G.L. Chapter 3, Section 63 as most recently amended by Chapter 557 of the Acts of 1986, the Senate Committee on Post Audit and Oversight respectfully submits to the full Senate the following report: **A Review of Faculty Workload Policies and Faculty Workloads at the University of Massachusetts at Amherst.**

This report is based on research by the Senate Post Audit and Oversight Bureau. It examines the current policies and procedures used by the University of Massachusetts at Amherst (UMA) to monitor, manage and report on the activities of its faculty. The report also examines the actual workloads of faculty at UMA.

Respectfully filed by the Senate Committee on Post Audit and Oversight:

Senator Thomas C. Norton
Chairman

Senator W. Paul White
Vice-Chairman

Senator Linda J. Melconian

Senator Robert A. Havern

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EXECUTIVE SUMMARY

Increased financial burdens borne by students and their families in support of public higher education in Massachusetts has heightened concerns about the ability of the institutions within that system to fulfill their missions. Because faculties at these institutions are the state employees whose activities are most essential to the success of this goal, the Committee decided to examine the issues of faculty workload policies and actual workloads. The Committee chose to review the policies and faculty workload at the University of Massachusetts at Amherst (UMA) because the University's status as the state's "flagship" campus offered the best opportunity to study these issues.

This report by the Senate Committee on Post Audit and Oversight examines the current policies and procedures used by UMA to monitor, manage and report on the activities of its faculty. The Committee explored the traditional faculty duties of teaching, research, and public service. These faculty activities are directly related to the mission and goals of UMA.

To measure faculty workload, the Committee analyzed instruction (teaching), research and public service workload of faculty. However, due to insufficient reporting systems at UMA, a comprehensive analysis was not possible. This data deficiency restricted the Committee to examining the instructional activities of faculty at UMA and from them make inferences relative to other faculty duties. This is unfortunate, for faculty have great discretion and autonomy over their unscheduled time, a block of time this study discovered is too large to remain unexplained.

The new decentralized higher education governance structure established by Chapter 142 of the Acts of 1991 offers greater fiscal and administrative autonomy to the Board of Trustees for the University of Massachusetts and the UMA administration. This autonomy combined with the threat to affordability and access requires that the accountability demands of the students, their families and the public be addressed.

The Committee found:

- **State appropriations to the university have been drastically reduced. These lost revenues have been replaced in part by the university through substantial increases in student tuition and fees.**

- **Faculty contact with students in traditional classroom settings appears to have increased between academic years 1988-89 and 1991-92 despite reductions in the faculty workforce and enrollment.**

- **The Committee estimates that faculty at UMA spend between 29.1 and 98.3 percent of their work week on teaching activities. The average of 45.7 percent appears to be consistent with national estimates.**

- **However, the current faculty workload reporting systems at the University do not adequately report faculty activities especially those related to the research and public service mission of UMA.**

Based on these findings, the Committee makes the following recommendations:

- **Faculty workload policies should be formalized at the University of Massachusetts at Amherst. The Committee recommends that the University of Massachusetts at Amherst (as well as the other public university, state and community college campuses) prepare annual reports. These reports should detail the activities of faculty and the colleges, schools and other major budgetary units towards the fulfillment of the institutional missions. These reports should be widely distributed to legislators and the public.**

It is in the best interest of faculty -- and the university as a whole -- that policymakers and the legislature understand the instructional, research and public service activities of faculty. Review of faculty activity is the responsibility of the university and is an essential part of institutional accountability. Therefore, there must be policies in place for the determination and evaluation of faculty activities and workloads.

The Committee recognizes that the nature of the academic disciplines as well as other factors (e.g. graduate and undergraduate enrollment) will affect the instructional, research and public service workloads of faculty. However, it is incumbent upon the University to explain these factors as they relate to legitimate variations in student/faculty ratios, contact hours and the research and public service output of the departments, colleges and schools.

The Committee strongly supports and understands the University's teaching, research and public service mission and does not recommend that faculty members begin "punching a time clock" (as some faculty and academic administrators fear). The Committee also recognizes that institutions of higher education, especially research universities like UMA, operate in a national "marketplace", competing for students, funding, faculty and administrators. However, as the budgeting and evaluation of governmental services is increasingly becoming performance-based, state entities, including public institutions of higher education, must better explain how they effectively and efficiently deliver services and fulfill their missions.

- **Taking into consideration the difficulties it encountered in the development of this report and the complexity of the issues involved in the determination of faculty workload, the Committee recommends that the Higher Education Coordinating Council (HECC) begin the process of "assessing overall faculty productivity" as mandated by Chapter 142 of the Acts of 1991.**

Faculty workload policies and faculty workloads should be studied at every public institution of higher education. The Higher Education Coordinating Council should not delay in its system-wide study of faculty productivity. The Committee recommends that the University of Massachusetts at Amherst and the other university, state college and community college campuses prepare annual reports detailing the activities of faculty and the colleges or schools and other major budgetary units towards the fulfillment of the institutional missions.

The issues raised by this report are in no way particular to the University of Massachusetts at Amherst. The rising costs of education for students and their families in the Commonwealth demands that concerns about institutional accountability be addressed at the state's community colleges, state colleges and the university campuses.

The Committee recognizes that measuring outputs and performance is difficult in many state agencies. However, the Committee was surprised to find that an institution of public higher education, which is inherently predisposed toward the transfer of knowledge, is seemingly unable to communicate its activities to the wider community.

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INTRODUCTION

This report by the Senate Committee on Post Audit and Oversight examines the workload of faculty at the University of Massachusetts at Amherst (UMA). In it the Committee addresses the traditional faculty duties of teaching, research, and public service. The report reviews recent trends in the instructional workload of faculty at the university as measured by two basic quantifiers: student to faculty ratios and weekly faculty contact hours.

Over the past few years, numerous state agencies throughout the nation have conducted studies of faculty workload. Many of these studies were comparisons which examined the workload of the faculty at the various institutions within the same state system. However, within any public system of higher education, the missions of the component institutions vary widely and make it difficult to directly compare faculty workloads.

The increased financial burden on students and their families has heightened concerns about the ability of UMA to ensure that the University's mission is being fulfilled. The Committee, therefore, chose to examine the faculty workload policies and faculty workloads of UMA since it is this group of state employees whose activities are essential to ensuring that the University's mission is fully discharged. The objectives of the Committee's study were:

- to examine the current policies and procedures employed by the University to regularly monitor, manage and report on the activities of its faculty; and
- to determine whether the University's mission is being cost-effectively fulfilled.

The Committee chose to examine the workload of faculty at the University of Massachusetts at Amherst (UMA) because the university's status as the state's "flagship" campus offered the

best opportunity to study the issue.[1]

PART ONE:
USE OF FACULTY WORKLOAD DATA

Faculty workload refers to activities that are related to professional duties and responsibilities. Examples of faculty workload activities are teaching, research, interacting with students, institutional service, community service, and professional development. The decentralized nature of the university administration means that the faculty, to a great extent, determine their unscheduled time -- i.e. their research and service activities. Faculty workload studies are useful to policymakers and college administrators for budgeting, personnel management, and accountability purposes. However, faculty workloads are difficult to quantify and/or qualify.

For instance, the University of Wisconsin system utilizes what is referred to as the Composite Support Index (CSI) to identify budget inequities among Wisconsin's public universities. The CSI reflects the average instructional dollar support per student credit hour provided for an institution. It is used by the University of Wisconsin system administrators as an indicator of relative budgetary support for instruction, not as a formula to drive institutional resource allocation.

The State University system of Florida produces an "Accountability Plan" which includes nine faculty workload, outcome and utilization measures. These reports are required by recently enacted "Accountability Legislation". This legislation represents an agreement between the

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[1]The Senate Post Audit and Oversight Bureau contacted twenty-five public universities and public higher education governing boards throughout the United States to gather information that would allow a comparative analysis of faculty workload standards common to institutions similar to UMA. Unfortunately, the response to our inquiries was minimal and the workload information obtained was not compatible with instate data. There appears to be no national repository of faculty workload information.

Florida State Legislature and the university system that grants greater fiscal and administrative autonomy to the university system in return for regular reporting of institutional data.

CHAPTER 142 OF THE ACTS OF 1991

Chapter 142 of the Acts of 1991 reorganized the governance of Massachusetts public higher education by abolishing the Board of Regents and creating in its place the Higher Education Coordinating Council (HECC) chaired by the Secretary of Education.[2] Chapter 142 also consolidated Southeastern Massachusetts University and the University of Lowell into the University of Massachusetts system with campuses at Amherst, Boston, Dartmouth, Lowell and Worcester.

HECC is charged with producing a report "assessing overall faculty productivity and overall teacher effectiveness within the public system of higher education." HECC must complete this report on or before January 1, 1994.[3]

The sections of Chapter 142 related to the reorganization of the university derived, in part, from the recommendations of the 1989 Report of the Commission on the Future of the University, Learning to Lead: Building a World-class Public University in Massachusetts (the so-called "Saxon Commission" report). This report proposed the consolidation of the five university campuses under a single Board of Trustees and advocated a return to the statutory language of the General Laws of the 1960's and 1970's which offered greater autonomy and

---

[2] Chapter 142 of the Acts of 1991 reorganized the public higher education system by primarily amending Chapter 15A, relative to the Board of Regents and Chapters 75, 75A and 75B relative to the University of Massachusetts, the University of Lowell and Southeastern Massachusetts University respectively.

[3] Section 33, Chapter 142 Acts of 1991.

authority to the Board of Trustees. This autonomy and authority was supposedly curtailed under the reign of the Massachusetts Board of Regents governing structure (1980 to July of 1991).

Chapter 142 offers greater fiscal and administrative autonomy to the new five campus University of Massachusetts. This structure demands that the Board of Trustees of the University of Massachusetts and UMA administrators ensure that there are sufficient internal controls, policies and reporting mechanisms in place that will allow the university to fulfill its mission and offer adequate accountability.

PART TWO:
THE MISSION OF THE UNIVERSITY OF MASSACHUSETTS AT AMHERST

The campus at Amherst is the largest of the five campuses of the newly consolidated University of Massachusetts. Within its ten schools and colleges, the university offers associate's degrees in eight disciplines, bachelor's degrees in ninety-two disciplines, master's degrees in seventy disciplines, and the doctorate in forty-eight disciplines. Undergraduate full-time equivalent (FTE) enrollment in the fall of 1991 was 16,972 students; graduate FTE enrollment was 4,433.[4] The university employed 1,052 FTE faculty in the fall of 1991.[5] Total FTE enrollment (both undergraduate and graduate) declined by 9.3 percent between the fall of 1989 and 1991. FTE faculty ranks were reduced over 14.0 percent from 1,232 FTE faculty in 1988.

The University of Massachusetts at Amherst has grown considerably since its incorporation as the Massachusetts Agricultural College in 1863, and has operated under various governing

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[4]Undergraduate headcount in the fall of 1991 was 17,271 students which included Stockbridge students (330). Graduate headcount was 6,073.

[5]This FTE figure includes all tenured and non-tenured instructional staff with the titles of professor, associate professor, assistant professor, instructor, and lecturer. Teaching assistants and other "non-faculty" are not included.

structures. In that year, the Massachusetts General Court incorporated the Trustees of the Massachusetts Agricultural College intending the "leading object" of the college "to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life - ".[6]

There was a clear vision and mission for "Mass Aggie" as well as a broad mandate to the trustees for the management of the college. The incorporating legislation had reporting provisions offering the accountability which the legislature deemed necessary since the Massachusetts Agricultural College was not under the direction of the Department of Education. Since 1863, statutory language relative to the mission of the university has recognized the instructional, research, and public service functions of the university.

The most recent Mission Statement adopted by the Board of Trustees for the University of Massachusetts at Amherst (March 1989) sees UMA as sharing a,

> "fundamental mission with all great universities: the acquisition, advancement, and dissemination of knowledge through teaching, research, and service."[7]

This is the same commitment sought by the legislature as it incorporated this seat of higher education in 1863.

One index of a state's commitment to a public university's mission is *State Revenues per Full-time Equivalent (FTE) Student.* This measure identifies the largest portion of financial resources available to a university. **Table I** illustrates the change in state revenues per FTE

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[6] "An Act to incorporate the Trustees of the Massachusetts Agricultural College." Chapter 220 of the Acts and Resolves of Massachusetts, 1863.

[7] The new Board of Trustees for the merged five campus University of Massachusetts is in the process of rewriting the mission statement of all of the campuses; Amherst, Boston, Dartmouth, Lowell and Worcester.

Table I - Change in State and Student Revenues per FTE Student for the University of Massachusetts at Amherst and Peer Institutions - Fiscal Years 1989 and 1991.

University	FY89 State Revenues per Student	FY91 State Revenues per Student	PERCENT CHANGE
Rutgers,State University of New Jersey	$8,337	$8,164	-2.1%
University of California at Santa Barbara	$7,497	$8,016	6.9%
University of Maryland at College Park	$7,812	$7,648	-2.1%
University of Nebraska at Lincoln	$5,658	$7,111	25.7%
University of Connecticut	$6,836	$6,771	-1.0%
University of Massachusetts at Amherst	$7,134	$6,025	-15.5%
Pennsylvania State University	$4,115	$4,467	8.6%
University of Delaware	$3,418	$3,470	1.5%
University of Colorado at Boulder	$2,399	$2,394	-0.2%
Peer group Average	$5,912	$6,007	2.4%

University	Student Revenues per Student	Student Revenues per Student	PERCENT CHANGE
University of Delaware	$5,306	$6,509	22.7%
Pennsylvania State University	$5,020	$5,674	13.0%
University of Colorado at Boulder	$4,519	$5,089	12.6%
Rutgers,State University of New Jersey	$3,339	$4,279	28.2%
University of Massachusetts at Amherst	$2,877	$4,182	45.4%
University of Maryland at College Park	$3,035	$3,676	21.1%
University of Connecticut	$2,878	$3,176	10.4%
University of California at Santa Barbara	$2,222	$2,583	16.2%
University of Nebraska at Lincoln	$1,962	$2,221	13.2%
Peer group Average	$3,462	$4,154	20.3%

student for UMA and eight other peer institutions between fiscal years 1989 and 1991. On average, the public universities in this group experienced a 2.4 percent increase in per student state revenues. UMA dropped in rank from fourth to sixth among it's peer universities. The university experienced a 15.5 percent decrease in state revenues per student during this period (from $7,134 to $6,025 per FTE student). The Committee estimates that the state revenues per student in FY92 would be $5,506, a 22.8 percent decrease in state revenues between FY89 and FY92.

The university's revenue "pie" has been shrinking due to substantial reductions in state financial support. The university, however, has been able to offset these reductions by requiring students to increase their financial support of the university through substantial increases in tuition and fees.[8] Undergraduate tuition and fees, $2,517 in AY88-89, increased by 93.2 percent to $4,863 in AY91-92. It should be noted that these charges, both before and after the increases, were well above those charged at most public universities nationally. Compared to a group of "peer" institutions, UMA is well above the average tuition and fees for AY92-93 at $5,062 (a 101.1 percent increase from AY88-89).[9] It is this significant increase in student charges which has heightened concerns about the ability of UMA to ensure that the University's mission is being fulfilled.

In FY89, total student contributions (revenues) to the university accounted for 25.9 percent or $89.8 million of all revenues available to UMA. That same year, state revenues accounted for 64.2 percent of UMA's total revenues or $222.8 million. In FY91, state revenues equaled $180.4 million and student revenues were $125.2 million.

PART THREE:
THE FACULTY

In academic year 1991-92 (AY91-92), the distribution of full-time equivalent faculty with the rank of (full) professor, associate professor and assistant professor was 57.1, 27.3 and 15.6 percent respectively. This compares with the peer group distribution average of 46.1, 29.8 and 24.1 percent for professors, associate and assistant professors respectively. Table II displays

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[8]"Five-Campus Peer Study," Donahue Institute for Governmental Services, Five-Campus Institutional Research Group, June 1, 1992. Student revenues include revenues from tuition and required fees, including lab fees and other special fees. State revenues include revenues from the state appropriation, plus fringe benefits paid by the state.

[9]The Donahue Institute determined the eight peer institutions for UMA based on the following criteria: 1.all peers are public institutions; 2.six of the eight are land grant universities; 3.no peers have a medical school; 4.all peers are classified by the Carnegie Foundation as Research I or II institutions; 5.all are comprehensive with 7%-16% of degrees in Engineering; 6.all have sponsored research between $32-$85 million; and 7.all have similar student body characteristics. "Five-Campus Peer Study," Donahue Institute for Governmental Services, Five-Campus Institutional Research Group, June 1, 1992. The AY92-93 tuition and fee data was taken from the October 21, 1992 edition of The Chronicle of Higher Education.

Table II - Faculty Salary Averages by Rank for UMA and Peer Institutions - Fall 1991.

University	(Full) Professor no.	(Full) Professor percent	(Full) Professor Salary	Associate Professor no.	Associate Professor percent	Associate Professor Salary	Assistant Professor no.	Assistant Professor percent	Assistant Professor Salary
Rutgers,State U.of New Jersey	552	44.6%	$79.9	420	33.9%	$57.9	267	21.5%	$45.4
U.of California-Santa Barbara	371	59.8%	$73.0	103	16.6%	$48.6	146	23.5%	$41.9
U.of Connecticut	530	49.0%	$69.2	286	26.5%	$52.4	265	24.5%	$42.6
U.of Maryland	527	46.1%	$68.6	392	34.3%	$48.3	224	19.6%	$40.8
Pennsylvania State U.	604	40.9%	$67.9	439	29.7%	$48.3	433	29.3%	$39.3
U.of Delaware	323	36.7%	$66.2	308	35.0%	$48.4	249	28.3%	$38.9
U.of Colorado	430	46.5%	$64.2	286	30.9%	$48.9	209	22.6%	$40.3
U.of Massachusetts-Amherst	622	57.1%	$61.9	298	27.3%	$47.2	170	15.6%	$37.6
U.of Nebraska	438	40.2%	$61.0	316	29.0%	$45.1	336	30.8%	$39.0
Peer group Average	489	46.1%	$68.0	316	29.8%	$49.5	255	24.1%	$40.6

the fall 1991 faculty average salaries at UMA as compared to its "peer" institutions.[10] The average salaries for professors, associate professors, and assistant professors at these institutions were $68,000, $49,500 and $40,600 respectively. Similar ranked faculty at UMA were paid $61,900, $47,200 and $37,600 respectively (or 15.5, 11.5 and 14.4 percent below the peer group average respectively).

When all graduate student resources are included in a count of those teaching at UMA, the distribution of instructional staff changes some. Figure I displays, by college and school, graduate student resources (teaching assistants) as a percent of all instructional resources actually teaching. In AY91-92, 13.2 percent of all instructional personnel were graduate student teaching assistants and associates (TA's). This is down from 14.7 percent in AY88-89. Most departments at UMA (70.3 percent) had fewer than 10.0 percent of their instructional staff as TA's. Appendix A, "Full-Time Equivalent Instructional Resources, Academic Year 1991-92," details the distribution of teaching resource by department at UMA.

[10] Ibid.

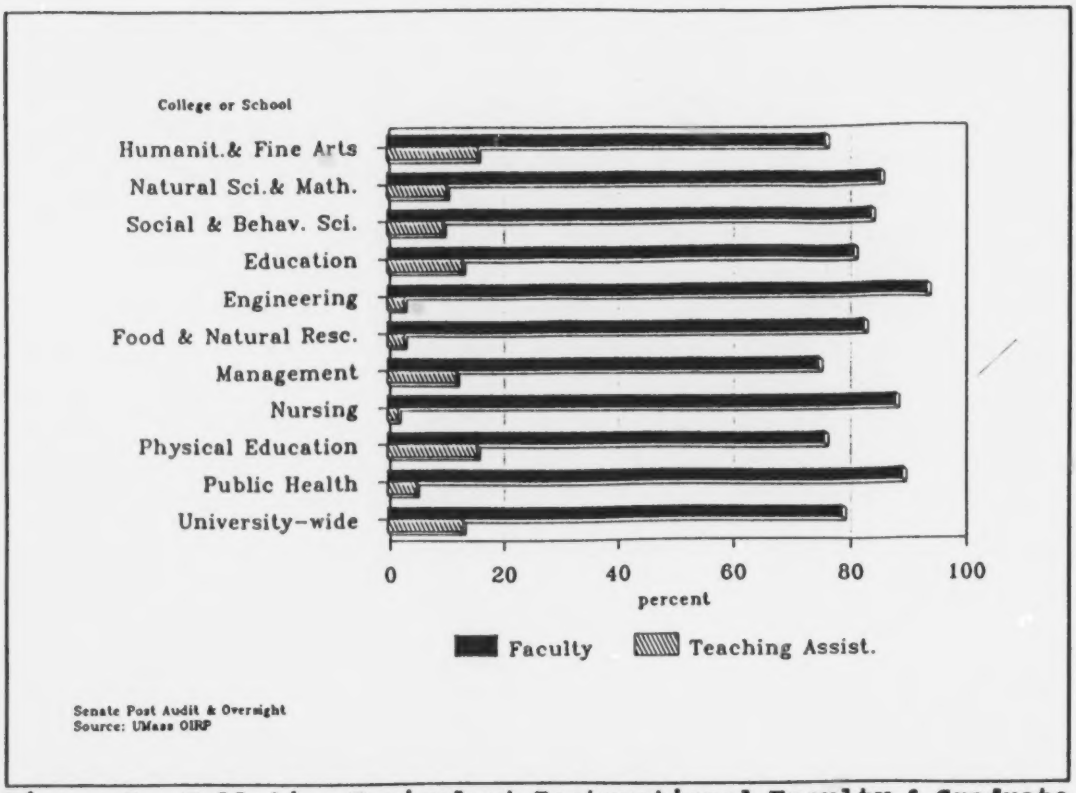

Figure I - Full-time Equivalent Instructional Faculty & Graduate Student Resources Teaching in Academic Year 1991-92.

PART FOUR:
MEASURES OF FACULTY WORKLOAD

The Committee realizes that no single measure exists which can adequately assess the entire range of faculty activities. There are, however, measures which can be derived from available institutional data to quantify the instructional activities of faculty an area which is of particular interest to this legislature. Some measures used are credit hours, contact hours, and student/faculty ratios. Used together, the Committee feels, these figures can give a clear picture of the instructional component of faculty endeavors.

There are difficulties associated with measuring, monitoring, and evaluating the research and

public service activities of faculty. In this part of the report, the faculty workload policies of the university are examined and the issues concerning the reporting of research and public service activities are explored. Student/faculty ratios and weekly faculty contact hour measures are used as the primary measurements of faculty instructional workload at the University of Massachusetts at Amherst (UMA).

FACULTY WORKLOAD POLICIES AT UMA

University policies which relate to faculty workload reflect the need of the university as a public research institution to expect faculty to participate in - and excel at - teaching, research and public service activities. However, the collective bargaining agreement and the university personnel policy offer little direction as to how faculty activities and performance are to be monitored, managed and reported.

Article XV of the 1986-89 collective bargaining agreement for the University of Massachusetts Faculty (both Amherst and Boston) addresses faculty workload. Section one of this article, referring to the goals of the University, requires,

> "that the average workload for faculty members consist of three basic elements: (a) the basic instructional workload, (b) research, creative or professional activity, and (c) service both on and off campus."

Article XV, however, is vague and contradictory in parts, making it difficult to understand exactly what factors take precedence in determining the instructional workload of faculty at the departmental level. For example, section three states that the actual instructional workload assignments shall reflect,

> "(a) the academic needs of the department or program, (b) the faculty member's qualifications and expertise, and (c) the faculty member's professional interests."

This agreement yields much of the development of teaching schedules and workload up to the past practices of the departments without any guarantee that the university's mission is being

addressed to it fullest.[11]

Section 4.9 of the "Academic Personnel Policy of the University of Massachusetts at Amherst, Boston, and Worcester"[12] states that consideration of a candidate for tenure shall be based on

> "Convincing evidence of excellence in at least two, and strength in the third, of the areas of teaching; of research, creative or professional activity; and of service."

Section 5.2 of the policy states that as a condition of employment all faculty must satisfactorily fulfill the following responsibilities:

> "a) Performance of assigned teaching activities including counseling and appropriate evaluation of student work.
>
> b) Scholarly, creative and professional activity adequate, as a minimum, for continuing updating of course content and other instructional and professional activities so as to reflect current developments in the faculty member's academic field.
>
> c) Participation in the operation and governance of the department, college or school, campus or University to the extent normally expected of all faculty members.
>
> d) Participation in extension work, continuing education, and other professional outreach service when such service is usually expected of all faculty members of the unit in which the faculty member holds an appointment."

These documents (the collective bargaining agreement and the academic personnel policy) are the basis of the relationship between the faculty and the administration, and they reveal an explicit expectation of teaching, research and service responsibilities for faculty. Other than these policies, there appears to be no formal guidelines or other policies in place to determine what constitutes "convincing evidence of excellence" in either of the three areas of teaching, research or service at the university, college/school or department level.

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[11]The most recent collective bargaining agreement for faculty at Massachusetts' state colleges spells out "(24) semester hours of credit of instruction per year" as the normal faculty teaching workload. This translates into 12 credit hours per semester. "Agreement Between the Board of Regents of Higher Education and the Massachusetts Teachers Association/NEA," Article XII, page 191-192, as most recently amended, December 27, 1990.

[12]This policy was adopted by the old three-campus Board of Trustees in 1976. However, the new five-campus Board voted to continue the existing policies until changed.

Many studies and articles have been written about the seeming incompatibility between the teaching and research demands made on faculty. The selection and advancement policies of many universities place greater emphasis on the research productivity of faculty than on teaching.

By and large, faculty believe that professional recognition, tenure and promotion are dependent on research productivity, and acknowledge an admitted professional preference toward such activities over teaching undergraduate students. A 1990 survey of academic department chairs in doctoral institutions (all public and private research and doctoral granting institutions) revealed that 73.0 percent rated *"research quality"* as a very important factor in hiring full-time tenure-track faculty, while only 45.0 percent rated *"teaching quality"* as being an important factor in the hiring of new faculty. This same survey found that 84.0 percent rated *"research quality"* as being very important in the granting of tenure, 77.0 percent rated the *"quality of publications"* as very important, and 68.0 percent rated *"teaching quality"* as an important factor.[13]

The Carnegie Foundation in 1990 reported the findings of its survey of faculty attitudes which found that the emphasis away from teaching is felt as strongly in the profession as with administrators. For example, 95.0 percent of faculty at research institutions (public and private) agreed that it is difficult for a person to achieve tenure if he or she does not publish. This survey found that 95.0 percent also felt that the number (not quality) of publications was important for the granting of tenure in their departments and 76.0 percent felt that receiving research grants was important for the granting of tenure. Also, 66.0 percent stated outright

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[13]National Center for Educational Statistics Survey Report, A Descriptive Report of Academic Departments in Higher Education Institutions, January 1990, U.S. Department of Education, Office of Educational Statistics.

that their primary interests lie in research or lean toward research.[14]

Though surveys such as these have not been made with faculty at UMA directly, the Committee concludes that because workloads are similar and the administrative and incentive structure is similar to that of the profession as a whole, that the emphasis on research is similar to other research universities.

In his much publicized, "Annual Report of the Dean of the (Harvard University) Faculty of Arts and Sciences 1990-91", Dean Henry Rosovsky offered his impressions on the increasing degree of "faculty freedom and independence" where "laissez-faire has already produced destructive tendencies." It was Dean Rosovsky's "firm belief" that indeed:

> "(I)t has become extremely difficult to say what constitutes standard teaching loads...Do professors teach what they choose or does the department insist that certain basic courses be covered? Why do humanists teach more than social and natural scientists? Why do some science departments have heavier teaching loads than others? Last year I asked a number of large departments to describe their standard loads. One chairman replied that it was not possible for him to answer the question.
>
> "We have every right to assume that a Harvard professor's primary obligation is to the institution - essentially students and colleagues - and that all else is secondary...The institution in which we have a full-time job has the greatest claim on our effort."

However, it was Dean Rosovsky's impression that for a "significant minority" of Harvard faculty:

> "(T)he sum of their efforts outside of Harvard is (was) greater than their efforts inside Harvard. We are dealing here with a mixture of activities: business ventures, professional activities, lectures, consulting (worldwide) for governments, etc. These activities have varying degrees of legitimacy and may be valuable for the individual and the University. But at the moment they are almost entirely controlled by the individual professors. There is no knowledge, and no real control or management from the administration.
>
> "FAS (the Harvard University Faculty of Arts and Sciences) has become

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[14]Boyer, Ernest L., Scholarship Reconsidered: Priorities of the Professoriate, The Carnegie Foundation for the Advancement of Teaching, 1990.

> a society largely without rules, or to put it slightly differently, the tenured members of the faculty - frequently as individuals - make their own rules."

Dean Rosovsky laments the lack of faculty data available to the department chairs and deans at Harvard University and recognizes that without readily available faculty data "it is much more difficult to be fair with individual professors or to establish reasonable average standards of performance."

The University of Massachusetts at Amherst is in a far better position to offer administrators and the public a description of the activities of its faculty. However, without measures of faculty workload and productivity related to research and public service activities there is no way of truly understanding or evaluating in a comprehensive manner the workload of UMA faculty.

MEASURING, EVALUATING AND REPORTING FACULTY ACTIVITY AT UMA

There appears to be several internal management systems which collect faculty activity information at UMA. **Appendix B, "Selected Recent Assessments of Faculty Activity"** summarizes some of these activities. For the purposes of the Committee's study, only the seven report categories under "Ongoing Management Systems and Reports" are considered regular mechanisms as they are performed annually and/or semesterly. The first three items under "Internal Management Reviews" ('College Review Process, 'Program and Budget Review' and the 'Faculty Reallocation Process') section are considered "semi-regular" because they were performed annually for some time before being discontinued. The "External Review" section, while important for setting longer-term goals, is not appropriate for providing short-term accountability.

As **Appendix B** suggests, the ongoing management systems do not offer a comprehensive view

of faculty activities. Other than the Annual Faculty Report, each report appears to deal with a single or a limited number of activities. The disconnectedness of these assessment systems would require a great deal of effort on the part of central administrators let alone a legislator or other interested party (the public), to get a complete picture of faculty activities at the departmental, college, and campus levels. While these systems offer department heads some insight into the activities of their faculty and play an important role in the personnel decision making process (tenure) their ability to report to the wider world is somewhat limited.

Great importance is placed on the Annual Faculty Reports (AFR). They are described by University administrators as "central to management decision making". This may be so, however, the reliability and usefulness of the AFR as a reporting and monitoring system is questionable because faculty report on their activities retrospectively. The significant time-lag between the filling out of the AFR and the reporting period calls into question the validity of the AFR. For example, faculty members were given the AFR form on October 1, 1991 and were to report on their activities for the Fall 1990 (Sept.- Dec. 1990) and the Spring 1991 (Jan.- May 1991) semesters. Considering that the AFR is relied upon heavily as a source of information to managers it is necessary that the Annual Faculty Report process be periodically tested for reliability.[15]

The weaknesses of the UMA reporting systems and the apparent lack of clarity in the personnel policy and collective bargaining documents are not inconsistent with the practices of other public and private universities or the professional interests and activities of faculty across the nation.

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[15] Memorandum to deans, directors, department heads, chairs and faculty members from Director of Academic Personnel, Office of the Provost, University of Massachusetts at Amherst dated August 15,1991.

At UMA this dilemma is further complicated because of the general nature of research and public service activities as well as the reliability of the current reporting systems employed by the University.

MEASURING, EVALUATING AND REPORTING RESEARCH AND PUBLIC SERVICE ACTIVITIES AT UMA

The Committee realizes the difficulties involved in measuring, monitoring, and evaluating the research and public service activities of faculty. Issues of quality and comparability make it difficult to measure these activities. Defining quality and quantity measures is made more difficult by the varying nature of the academic disciplines. However, these difficulties should not deter departments, schools and colleges, and the university from regularly reporting on these activities.

Educators as well as managers in both the public and private sectors are focusing on quality measurements of effectiveness and efficiency. The national debate over school reform and the introduction of "total quality management" (TQM) concepts in private industry and government operations attest to this. Administrators at UMA point to the decentralized management structure of higher education institutions as a strength as well as consistent with the TQM approach.

However, as Appendix B points out, the regular ("ongoing") management systems of UMA do not report qualitative measures of faculty activity. Instead the reports produced by these systems are, by and large, a counting of things such as degrees granted, scheduled courses, information gathered from Annual Faculty Reports (e.g. number of books and scholarly products etc.), and grants and awards sought and awarded. Student evaluations of teaching performance are considered a qualitative output measure, however, it is unclear how important

these evaluations are in the tenure-granting process. The 1990 Carnegie Foundation survey of faculty found that there is no strong evidence to suggest that student evaluations greatly impact the granting of tenure in research universities.[16]

Public service activities of faculty are disparate. These activities occur on campus or off and are organized or individual. However, since public service (and research) is part of the University's mission and faculty are expected to perform such duties, they need to be quantified and/or qualified and reported on a regular basis.

Faculty at UMA report their public service activities on the Annual Faculty Reports (AFR) under one of five categories: 1) Departmental Service and Administrative Contributions, 2) School, College, or University Service and Administrative Contributions, 3) Service to Profession or Discipline, 4) Professionally Related Outreach Service to the Public beyond the University, and 5) Other activities.[17] According to Appendix B, it appears that 1987 was the last time a comprehensive "listing" of public service activities was compiled.

The AFR is also utilized to collect discrete products of the research and scholarly activities of faculty. UMA faculty are required to report "Research, Creative, or Professional Activity" in sixteen separate categories (for example: books, articles, performances, etc.).[18] A 1991 study

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[16]According to the Carnegie survey 51% of faculty at research universities (both public and private) felt that student evaluations were very (10%) important or fairly (41%) important for granting tenure in their departments while 46% felt that student evaluations were very (16%) unimportant or fairly (30%) unimportant. 72% of faculty at research universities felt that recommendations from current or former students were unimportant for granting tenure. Boyer, Ernest L.,Scholarship Reconsidered: Priorities of the Professoriate, The Carnegie Foundation for the Advancement of Teaching, 1990, Tables A-6 and A-13.

[17]Memorandum to deans, directors, department heads, chairs and faculty members from Director of Academic Personnel, Office of the Provost, University of Massachusetts at Amherst dated August 15, 1991.

[18]Ibid. The categories include: A. Research Activity: 1. Completed - a.Books and Monographs; b.Textbooks; c.Edited Books, Anthologies,Collections,Bibliographies;d.Articles in Journals;e.Chapters in Books;f.Reviews,Abstracts,Pamphlets; and g.Papers presented at conferences and meetings which were published in the proceedings. 2. Work Completed and Accepted for Publication. 3. Work Completed and Submitted for Review. 4. Work in Progress. B. Creative Activity (performances, shows, compositions,etc.): 1. Completed. 2. Completed but not yet presented,performed, produced,or published. 3. In Progress. C.

completed by the Social and Demographic Research Institute (SADRI) at the University of Massachusetts at Amherst calculated median and average productivity measures based on the *number* of scholarly products and monetary awards attributed to faculty within each of the academic departments and college/schools of the university.[19] SADRI measures were used to assist UMA administrators to make program changes due to budget constraints. In this case it appears that university administrators utilized quantitative analysis as a factor in distributing budget cuts across programs. As of this writing, however, neither SADRI or the administration have updated this counting of research activities.

A distinction must be made between those public service and research activities which are being performed for the University and those which faculty members perform (and are compensated for, over and above their salary) which can be considered secondary employment.

Although faculty appear to be reporting their activities (through the AFR process), there still is little in the way of qualitative data being regularly reported upward from the departments and outward to the public and the legislature. The same can be said of the quantitative data which is being generated by the systems described in Appendix B. These data are not coordinated enough to give a comprehensive view of faculty activities.[20]

Therefore, since the University is unable to offer adequate quantitative or quality (outcome) variables for the public to examine to determine whether it is fulfilling its mission, the Committee has been forced to use quantitative measures relating to the instructional effort of

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Professional Activity not included in A or B above: 1.Completed, 2.In Progress. D. Other Research, Creative, or Professional Activities not adequately covered in any of the previous sections.

[19] "UMass Department and School Productivity Measures: 1984-1988 (Revised May 29, 1991)," Social and Demographic Research Institute memorandum dated May 29, 1991.

[20] Also, as already noted, the Committee questions the reliability of the AFR as a reporting mechanism on which much of the reporting depends.

faculty which the UMA management systems provide (student/faculty ratios and weekly faculty contact hours) and from this analysis, make inferences about the research and public service efforts of UMA faculty.

STUDENT TO FACULTY RATIOS

Student/faculty ratios are a common measure of teacher workloads. Institutions and academic departments use these ratios to indicate institutional or program quality. Accrediting agencies sometimes utilize student/faculty ratios as factors in the accreditation process. This section discusses student/faculty ratios at UMA and how they changed between AY88-89 and AY91-92. **Appendix C, "University of Massachusetts at Amherst Student/Faculty Ratios Academic Years, 1988-89 to 1991-92"**, details these ratios by department and college/school. The university-wide student/faculty ratio increased from 13.9 in AY88-89 to 14.4 in AY91-92, a change of 3.6 percent.[21] A decrease in FTE faculty from 1,213 to 1,041 and a simultaneous decrease in FTE instructed students from 16,886 to 15,023 made this increase possible.

Student/faculty ratios vary within the university's schools and colleges. **Figure II** illustrates the range of student/faculty ratios among the various departments and disciplines within the large budgetary units (i.e. the ten colleges and schools). As an example, in AY91-92, within the Humanities and Fine Arts (with an overall ratio of 13.5 to 1), the student/faculty ratio for the Classics department was 33.2 to 1. In contrast, the Germanic Languages and Literature department had a ratio of 9.6 to 1.[22] The variation in departmental student/faculty ratios may be due to the nature of the discipline, the research and service workload of faculty, or

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[21] For this report, ratios were calculated by dividing the total number of full-time equivalent (FTE) students by the number of FTE faculty. See Appendix C "NOTES" for further information.

[22] The 5.5 FTE faculty of the Classics department instructed 182.5 FTE students while the Germanic Languages and Literature department instructed 96.4 FTE students with 10.0 FTE faculty.

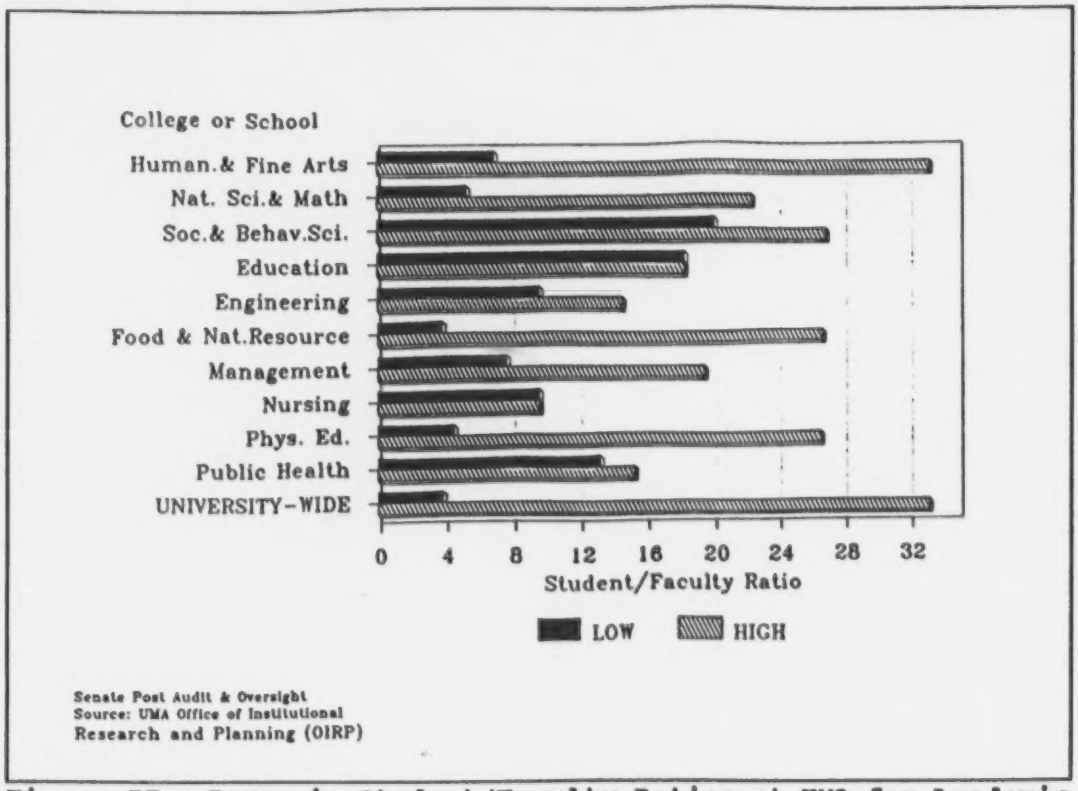

Figure II - Range in Student/Faculty Ratios at UMA for Academic Year 1991-92.

above average graduate student enrollment.

Lower student/faculty ratios may be required in disciplines such as foreign languages which require intensive personal interaction between teacher and student. Larger student/faculty ratios may be more justifiable in survey and introductory classes with high enrollments such as philosophy, history or other social sciences. Lower ratios can also be expected in departments which have a large proportion of graduate students.

CONTACT HOURS

A second measure used to define faculty workload is contact hours. Contact hours reflect actual time, in hours, spent on instructional activities. Weekly Faculty Contact Hours refer to:

> ***the number of hours in a week a faculty member meets with classes in a formal instructional environment or in any other credit-bearing session.***

Such activities include laboratories, studios, and discussion periods which offer student credits. For the purposes of this study, these formal activities fall under the rubric of "lecture" or regular classroom instruction. There are also other instructional activities, such as independent study, practica, and thesis and dissertation supervision which offer student credits and must be considered when measuring faculty workload.

The American Association of University Professors (AAUP), a national professional organization representing the interests of faculty, prescribes an optimal weekly contact hour standard of six hours (6.0) for faculty at research institutions such as UMA. The AAUP rationale relates to lecture or regular classroom activities (lecture, lab, discussion and studio "classes") and recognizes that workloads may be affected by other demands made on teachers related to teaching (i.e. independent study, practica, thesis and dissertation supervision), research and public service.[23]

At UMA, during AY91-92, average weekly faculty contact hours per FTE faculty member (in lecture type settings) was 7.1 hours. This is a 7.5 percent increase over the 6.6 hour average in AY88-89 and above the AAUP preferred six hour standard. It is in these classes that a majority of undergraduate students receive their instruction. Appendix D, "University of Massachusetts at Amherst, Faculty Contact Hours, Academic Year 1991-92," displays contact hour data for

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[23]The American Association of University Professors, "Statement on Faculty Workload," October 1969 (revised April 1990).

each department at UMA.

Across all academic departments in AY91-92, 63.4 percent of the departments were above the AAUP six hour preferred standard and 36.5 percent of the departments were above the university-wide 7.1 hour average. Figure III illustrates the range in lecture type contact hours for each of the colleges and schools at UMA for AY91-92.

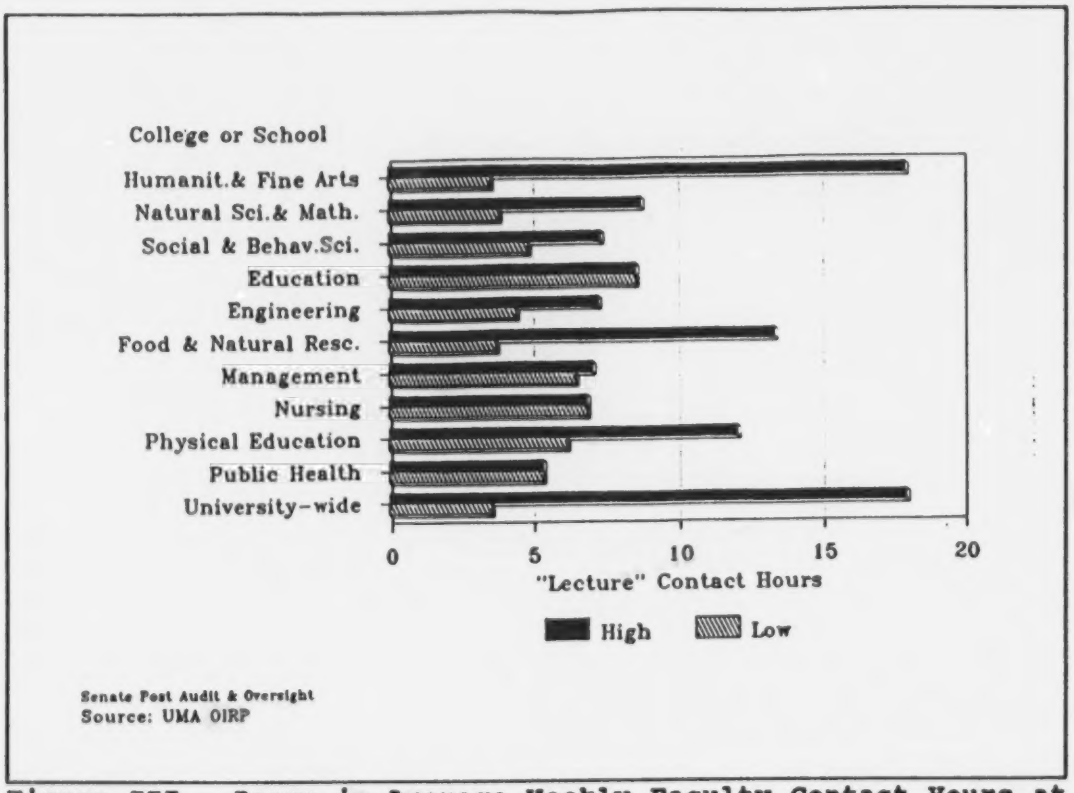

Figure III - Range in Average Weekly Faculty Contact Hours at UMA for Academic Year 1991-92.

Faculty spent an average of 5.7 hours per week on non-lecture type instructional contact with students. Non-lecture type faculty contact includes supervision of independent study, practica, honors, masters thesis and doctoral dissertation supervision, and program fee students

(Appendix D). These duties by and large can only be performed by tenured faculty and though these sessions do not take place in traditional classroom or lab settings, they do offer students credit and require closer student/faculty contact. Between AY88-89 and AY91-92 there was a slight decrease in non-lecture type instructional contact from 5.8 contact hours per FTE faculty to 5.7. Total weekly contact hours (in lecture and non-lecture type settings) averaged 12.8 hours per FTE faculty in AY91-92, slightly greater than the 12.4 hours in AY88-89. Thus, it can be said that even though the total weekly faculty contact hour average increased only slightly, it was produced by a modest increase in traditional contact in lecture-type settings.

However, it should be noted that if the atypical contact hour averages produced by the School of Education faculty are excluded, the university-wide contact hour averages decrease to: 6.7 hours for lecture type instruction, 4.7 hours for non-lecture type instruction, and 11.3 total contact hours.

Like the slight increase in student/faculty ratios between AY88-89 and AY91-92, the increase in lecture contact hours *may be* attributed to a reduction in the FTE faculty workforce rather than to any volume increase in the hours taught by faculty members themselves. However, it should be noted that there was an increase in lecture contact hours between AY88-89 and AY91-92 (7.6 percent) and a slight (1.7 percent) decrease in non-lecture contact hours during the same period. Thus it appears that "traditional" classroom contact between students and faculty has not suffered with reductions in the faculty workforce or enrollment.

There appears to be an inverse relationship between contact hours and student/faculty ratios at UMA (Table III). Those departments which had average contact hours below the university-wide average tend to have student/faculty ratios above the university-wide average in AY91-92. For example, the History department had a student/faculty ratio of 19.3 to 1 and a contact

Table III: Average Weekly Faculty Contact Hours and Student/Faculty Ratios at UMA - Academic Year 1991-92.

College or School	"Lecture" Contact Hours	Other Contact Hours	TOTAL Contact Hours	Student/ Faculty Ratios
Humanities & Fine Arts	8.9	3.5	12.4	13.5
Natural Sci.& Mathematics	5.4	4.0	9.4	12.6
Social & Behavioral Sci.	5.9	5.1	11.0	22.3
Education	8.6	26.3	34.9	18.3
Engineering	5.6	9.1	14.7	11.4
Food & Natural Resources	7.3	3.4	10.7	11.1
Management	6.9	2.8	9.7	15.0
Nursing	6.9	3.3	10.3	9.6
Physical Education	8.0	4.4	12.4	17.6
Public Health	5.4	5.6	11.0	14.6
University-Wide Average	7.1	5.7	12.8	14.4

hour average of 5.8 (lecture type). This was the case in over 79.0 percent of the departments during AY91-92. Nearly 24.0 percent of the departments had above the university-wide average averages in both measures and 19.0 percent registered below university-wide averages on both measures. Such a relationship implies that as student/faculty ratios become larger (a possible consequence of budget cuts) and enrollment declines, average faculty contact becomes limited to fewer hours per week.

It must be noted again that differences between departments in contact hours and student/faculty ratios may be influenced by the nature of the disciplines and the research and public service activities of faculty. However, these differences must be more clearly explained and reported.

SUMMARY

A comprehensive view of the workload of faculty at the University of Massachusetts at Amherst (UMA) is unavailable at this time. The Committee has not been able to account for the research and public service activities of UMA faculty at the department, college/school or institutional levels because the current reporting mechanisms of UMA do not adequately collect and report on these activities. There are, it appears, many formal systems in place which collect discrete information about faculty activities, workloads, and productivity. However, this information is not coordinated to provide a regular report that ensures the University's mission is being fulfilled. Therefore, the Committee, without either qualitative or quantitative measures of public service and research activities, has been left to make certain assumptions about these activities based on the institutional data related to the instructional component of faculty activities (i.e. contact hours). This data, unfortunately, is somewhat narrowly focused on time, which is not necessarily a quality measurement. However, in order to put the activities of faculty at UMA into any perspective, the Committee is left with just such a parameter - time.

The contact hour data can be utilized to estimate the percent of a faculty member's work week that is devoted to instructional activities at UMA. The U.S. Department of Education has estimated that faculty at public research institutions work an average of 52 hours per week and devote 43 percent of this time to teaching activities.[24] By applying a standard measure of preparation time, faculty would appear to spend, on average, 45.6 percent of their work

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[24] National Center for Educational Statistics, U.S. Dept. of Education, Office of Educational Research and Improvement, Profiles of Faculty in Higher Education Institutions, 1988, pages 47-59.

Table IV - Total Instructional Hours as a Percent of an Average 40 hour and 52 hour Work Week.

College or School	Lecture Contact Hours	Other Contact Hours	Average Prep. Time	Lecture Contact & Prep.	Total Instructional Hours	Percent of 40 hr. Work wk.	Percent of 52 hr Work wk.
Humanities & Fine Arts	9.2	3.1	10.8	20.0	23.1	57.9%	44.5%
Natural Sciences & Math.	4.9	4.7	5.5	10.4	15.1	37.8%	29.1%
Social & Behavioral Sci.	6.0	5.3	10.8	16.8	22.1	55.2%	42.4%
Education	10.0	28.6	12.5	22.5	51.1	127.8%	98.3%
Engineering	6.5	7.3	10.8	17.3	24.6	61.4%	47.2%
Food & Natural Resources	7.2	3.4	10.8	18.0	21.4	53.5%	41.2%
Management	6.0	1.6	10.8	16.8	18.4	46.1%	35.4%
Nursing	10.9	1.6	12.5	23.4	25.0	62.5%	48.1%
Physical Education	9.5	3.3	12.5	22.0	25.3	63.1%	48.6%
Public Health	5.1	5.2	10.8	15.9	21.1	52.8%	40.6%
Other	3.3	13.3	5.5	8.8	22.1	55.2%	42.4%
University-Wide Average	7.1	5.8	10.8	17.9	23.7	59.4%	45.7%

week on teaching activities if the 52 hour per week average applied at UMA (Table IV).[25] If the standard 40 hour work week were employed, teaching activities (without preparation time) would account for 32.2 percent of a faculty member's time (59.2 percent, if adjusted for preparation time) at the University of Massachusetts at Amherst. Table IV describes for each college and school at UMA, the total instructional hours of faculty as a percentage of both the standard 40 hour work week and the U.S. D.O.E. 52 hour work week. As noted in the table, there is considerable variation among the ten colleges and schools at UMA.

However, these are rough estimates based on uncertain assumptions. The only "givens" which

[25] Referring to a study by Ladd and Lipset (1977), Harold Yuker associates 10.80 average hours of preparation time with time spent in class (contact hours) of between 5 and 8. The following relationships are indicated: 1 to 4 class hours warrant an average of 5.5 preparation hours; 5 to 8 class hours, 10.8 preparation hours; 9 to 16 class hours, 12.5; and 17 to 34 class hours, 9.1 preparation hours per week. ASHE-ERIC Higher Education Research Report No.10, 1984, Faculty Workload: Research, Theory, and Interpretation, Harold E. Yuker. Therefore, 10.8 hours of preparation time would be added to the UMA university-wide average of 7.1 contact hours and the 5.8 "other" contact hours. These 23.7 total instructional contact hours would constitute 45.6 percent of a 52 hour work week and 59.3 percent of a 40 hour work week.

the Committee dealt with were the instructional contact hour data (excluding preparation time). This means that regardless of how one addresses the issues of preparation time or average work week the fact remains that there is a substantial amount of faculty activity taken up by research and public service activities which are insufficiently reported by UMA.

CONCLUSIONS AND RECOMMENDATIONS

The Committee chose to examine the workload of faculty at the University of Massachusetts at Amherst (UMA) because the university's status as the state's "flagship" campus offered the best opportunity to study the issue.

During the course of the study, the Committee found that the university's revenue "pie" was shrinking due to substantial reductions in state financial support and that the university was able to offset these reductions by requiring students to increase their financial support of the university through substantial increases in tuition and fees.

This increased effort on the part of students raises anew questions concerning faculty workload and the ability of UMA to guarantee that the University's mission is being fulfilled. The Committee, therefore, chose to examine the faculty workload policies and faculty workloads of UMA because it is this group of state employees whose activities are essential to ensuring that the University's mission is met. To measure faculty workload, the Committee analyzed instruction (teaching), research and public service workload of faculty. However, due to insufficient reporting structures at UMA, a comprehensive analysis was not possible. This data deficiency restricted the Committee to examining the instructional activities of faculty at UMA and from them make inferences relative to other faculty duties. This is unfortunate, for faculty have great discretion and autonomy over their unscheduled time, a block of time

this study discovered is too large to remain unexplained.

The new decentralized higher education governance structure established by Chapter 142 of the Acts of 1991 offers greater fiscal and administrative autonomy to the Board of Trustees for the University of Massachusetts and the UMA administration. This new structure requires that the accountability demands of the students, their families and the public be addressed adequately.

The Committee found:

- **State appropriations to the university have been drastically reduced. These lost revenues have been replaced in part by substantial increases in student tuition and fees.**
- **Faculty contact with students in traditional classroom settings appears to have increased between academic years 1988-89 and 1991-92 despite reductions in the faculty workforce and enrollment.**
- **The Committee estimates that faculty at UMA spend between 29.1 and 98.3 percent of their work week on teaching activities. The average of 45.7 percent appears to be consistent with national estimates.**
- **However, the current faculty workload reporting systems at the UMA do not adequately report faculty activities especially those related to the research and public service mission of the University.**

Based on these findings, the Committee makes the following recommendations:

- **Faculty workload policies should be formalized at the University of Massachusetts at Amherst. The Committee recommends that the University of Massachusetts at Amherst (as well as the other public university, state and community college campuses) prepare annual reports. These reports should detail the activities of faculty and the colleges, schools and other major budgetary units towards the fulfillment of the institutional missions. These reports should be widely distributed to legislators and the public.**

It is in the best interest of faculty -- and the university as a whole -- that policymakers and the legislature understand the instructional, research and public service activities of faculty. Review of faculty activity is the responsibility of the university and is an essential part of

institutional accountability. Therefore, there must be policies in place for the determination and evaluation of faculty activities and workloads.

There should be formal faculty workload policies at the university, college/school, and department level and regular reporting of faculty workload data should be required by the Board of Trustees of the University of Massachusetts. The Committee believes that flexibility in the determination of workload policies is best realized at the departmental level. The nature and demands of the academic disciplines are varied and therefore require that workload policies be flexible enough to accommodate the needs of students, both graduate and undergraduate alike. These departmental decisions must be monitored, reported and periodically reviewed to ensure that they are consistent with the mission of the college/school and - more importantly - the university as a whole.

Workload policies at the university level should be broad-based and consistent with the institution's mission, and adequate for the identification of inconsistencies. At the college/school level workload policies should be further detailed and at the departmental level policies should be even more detailed to ensure that the expectations of student, faculty, department and university are sufficiently addressed.

The current faculty workload reporting system whereby faculty annually fill out an activity report for department chairs and deans is not compiled in the aggregate for comparative analysis. Since faculty generally determine their research and public service workloads there needs to be better measures beyond anecdotal evidence to account for time they devote to these activities which may take up more than half their professional time. It is incumbent upon the faculty and the institution to explain and justify the work which they do.

The Committee recognizes that the nature of the academic disciplines as well as other factors (e.g. graduate and undergraduate enrollment) will affect the instructional, research and public service workloads of faculty. However, it is incumbent upon the University to explain these factors as they relate to legitimate variations in student/faculty ratios, contact hours and the research and public service output of the departments, colleges and schools.

The Committee strongly supports and understands the University's teaching, research and public service mission and does not recommend that faculty members begin "punching a time clock" (as some faculty and academic administrators fear). The Committee also recognizes that institutions of higher education, especially research universities such as UMA, operate in a national "marketplace", competing for students, funding, faculty and administrators. However, as the budgeting and evaluation of governmental services is increasingly becoming performance-based, state entities must better explain how they effectively and efficiently deliver services and fulfill their missions.

- **Taking into consideration the difficulties it encountered in the development of this report and the complexity of the issues involved in the determination of faculty workload, the Committee recommends that the Higher Education Coordinating Council (HECC) begin the process of "assessing overall faculty productivity" as mandated by Chapter 142 of the Acts of 1991.**

Faculty workload policies and faculty workloads should be studied at every public institution of higher education. The Higher Education Coordinating Council should not delay in its system-wide study of faculty productivity. The Committee recommends that the University of Massachusetts at Amherst and the other university, state college and community college campuses submit annual reports detailing the activities of faculty and the colleges and schools and other major budgetary units towards the fulfillment of the institutional missions.

The issues raised by this report are in no way particular to the University of Massachusetts at Amherst. There is an ample supply of national reports and studies, articles and editorials

which deal with the issues related to faculty workload/productivity. The rising costs of education for students and their families in the Commonwealth demands that concerns about institutional accountability be addressed at the state's community colleges, state colleges and the university campuses.

The competing claimants for state resources (i.e. Medicaid, prisons, highways, welfare, primary and secondary education, etc.) in many cases carry federal mandates or court orders. Therefore, it is in the best interest of the public system of higher education as the largest recipient of "discretionary" spending at the state level to be vigilant and effective in addressing the accountability demands of the public.

The Higher Education Coordinating Council (HECC) should begin the process of "assessing overall faculty productivity" as mandated by Chapter 142. As required, the HECC report is to be published every four years beginning in January of 1994. In order for such a report to be useful to policymakers and higher education administrators the first of these studies should serve as a benchmark and be comprehensive in its analysis of faculty throughout the public system. Therefore, it is imperative that HECC begin planning and devising systems and processes for the determination and gathering of faculty data. However, although it may be more feasible to produce a comprehensive system-wide faculty productivity report every four years, the Committee believes that the reporting of faculty workload and institutional activities towards the fulfillment of mission at the campus level should be done more regularly.

The Committee recognizes that measuring outputs and performance is difficult in many state agencies. However, the Committee is surprised that an institution of public higher education, which is inherently predisposed toward the transfer of knowledge, is seemingly unable to communicate its activities to the wider community.

APPENDICES

University of Massachusetts at Amherst

FULL-TIME EQUIVALENT INSTRUCTIONAL RESOURCES

Academic Year 1991-92

[1]	[2] TENURED, TENURE-TRACK & QUASI-BASE FACULTY						[3] NON-TENURE TRACK FACULTY						[4]	[5]	
Department or Program	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	TEACHING ASSISTANTS Total	NON-FACULTY Total	TOTAL
HUMANITIES AND FINE ARTS															
Dean's Area, HFA	1.0					1.0								0.3	1.3
Afro-American Studies	1.5	6.0	1.0			8.5	0.3				1.5	1.8			10.3
Art	16.5	7.5	5.0		1.0	30.0	0.5		1.0		0.5	2.0	6.0		38.0
Asian Languages and Literatures	5.0		2.0			7.0					0.8	0.8	0.1		7.9
Classics	4.5	1.0				5.5							2.3		7.8
Comparative Literature	7.0	3.0				10.0							2.6		12.6
English	38.5	9.5	7.0		0.5	55.5	0.5	1.0			1.9	3.4	9.4	0.1	68.5
French and Italian	8.5	3.5	1.5			13.5	0.5		0.3		0.3	1.0	4.8		19.2
Germanic Languages and Literatures	4.0	4.0	2.0			10.0					0.5	0.5	5.1	0.3	15.9
History	25.2	5.0	2.0			32.2	0.3		1.0		0.9	2.1	1.3		35.6
Journalism	4.0	3.0				7.0	0.3				0.4	0.7			7.7
Judaic and Near Eastern Studies	1.5	1.5	0.5		1.0	4.5		0.4	1.6			2.0	0.3		6.8
Linguistics	6.5	1.5	2.0			10.0	0.1					0.1	5.3	0.6	16.1
Music and Dance	19.0	12.3	1.3		1.5	34.0	1.5	1.0	2.9		1.3	6.6	1.5	0.4	42.5
Philosophy	9.1	2.5				11.6	0.6					0.6	1.0	0.1	13.4
Slavic Languages and Literatures	3.0	1.5				4.5							0.3		4.8
Spanish and Portuguese	8.5	3.0	2.5		0.4	14.4	0.1				0.4	0.5	13.1		28.0
Theater	3.0	3.0	1.0			7.0			1.0		2.0	3.0	2.0	0.3	12.3
Women's Studies	2.4		2.0		1.0	5.4							1.6	0.3	7.3
TOTAL	168.7	67.8	29.8	—	5.4	271.7	4.7	2.4	7.8	—	10.3	25.2	56.5	2.3	355.6
NATURAL SCIENCES AND MATHEMATICS															
Dean's Area, NSM													0.4		0.4
Biochemistry and Molecular Biology	8.0	0.2	2.0			10.2			0.6		0.1	0.7			11.0
Botany	6.5	3.0				9.5	0.7	0.5			0.3	1.4	0.6		11.5
Chemistry	17.0	4.8	5.8		0.5	28.0	0.5		0.3		0.5	1.3	4.6	0.4	34.2
Computer and Information Science	13.1	4.9	3.8			21.8		0.3	1.1		0.5	1.8	1.5	0.5	25.7
Geology and Geography	11.5	3.8	2.0			17.3	0.1		0.6		1.0	1.7	0.8	0.1	19.8
Mathematics and Statistics	39.9	6.5	2.8			49.2					0.4	0.4	17.8	0.4	67.7
Microbiology	6.0	3.0	3.0			12.0								0.3	12.3
Physics and Astronomy	33.4	8.8	8.0			50.2	0.2					0.2	1.8	0.1	52.3
Polymer Science and Engineering	7.8	1.8	1.0			10.4							0.5		10.9
Zoology	14.5	6.0	3.0			23.5	0.3		0.1			0.5	0.5	0.1	24.6
TOTAL	157.5	42.7	31.3	—	0.5	232.1	1.9	0.8	2.6	—	2.8	6.0	28.5	1.9	270.4

APPENDIX A

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University of Massachusetts at Amherst

FULL-TIME EQUIVALENT INSTRUCTIONAL RESOURCES

Academic Year 1991-92

[1]	[2] TENURED, TENURE-TRACK & QUASI-BASE FACULTY						[3] NON-TENURE TRACK FACULTY						[4]	[5]	
Department or Program	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	TEACHING ASSISTANTS Total	NON-FACULTY Total	TOTAL
SOCIAL AND BEHAVIORAL SCIENCES															
Dean's Area, SBS	1.0					1.0		0.3	0.1			0.4	1.3		2.6
Anthropology	10.0	2.5	2.0			14.5					0.3	0.3	1.3		16.1
Communication	4.5	9.0	3.0			16.5	0.9		0.1			1.0	8.8		26.3
Economics	12.0	9.5	2.3			23.8	0.8				0.6	1.4	2.3	0.3	27.9
Labor Studies					0.5	0.5					1.5	1.5	1.5		3.5
Legal Studies	3.5	1.5	0.5			5.5					0.9	0.9	0.3		6.6
Political Science	10.3	3.8	4.8			18.8	0.1	0.5				0.6	0.9		20.3
Psychology	33.5	3.0	1.0		1.0	38.5			1.0		1.8	2.8		0.1	41.3
Sociology	15.8	5.0	1.0			21.8	0.3		0.2		0.1	0.6	0.3		22.6
TOTAL	90.5	34.3	14.6		1.5	140.9	2.1	0.8	1.5		5.0	9.3	16.6	0.4	167.1
COLLEGE OF ARTS AND SCIENCES															
Dean's Area, CAS		0.5				0.5									0.5
CASIAC											5.0	5.0	1.0	0.8	6.7
TOTAL		0.5				0.5					5.0	5.0	1.0	0.8	7.2
EDUCATION															
Education	30.8	22.0	4.0		5.5	62.1	1.3	0.5	0.2		1.7	3.8	10.1	0.5	76.3
TOTAL	30.8	22.0	4.0		5.5	62.1	1.3	0.5	0.2		1.7	3.8	10.1	0.5	76.3
ENGINEERING															
Dean's Area, ENG	1.0	1.0				2.0								0.1	2.1
Chemical Engineering	8.2	4.0	1.0		1.0	12.2		1.0				1.0			13.2
Civil Engineering	10.2	5.0	1.7			16.8							0.5		17.3
Electrical and Computer Engineering	10.0	14.0	7.0			31.0	0.3	0.5				0.8	0.6	0.3	32.6
Industrial Engineering and Operations Research	2.5	2.5	2.0			7.0							1.0		8.0
Mechanical Engineering	9.0	8.5	4.0			21.5	0.7					0.7	0.8	0.3	23.2
TOTAL	38.8	35.0	15.7		1.0	90.5	0.9	1.5				2.4	2.9	0.6	96.4

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University of Massachusetts at Amherst

FULL-TIME EQUIVALENT INSTRUCTIONAL RESOURCES

Academic Year 1991-92

[1]	[2] TENURED, TENURE-TRACK & QUASI-BASE FACULTY						[3] NON-TENURE TRACK FACULTY						[4]	[5]	
Department or Program	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	TEACHING ASSISTANTS Total	NON-FACULTY Total	TOTAL
FOOD AND NATURAL RESOURCES															
Dean's Area, FNR											0.9	0.9	0.3	0.3	1.4
Consumer Studies	1.0	4.8	1.0		0.8	7.6					3.1	3.1	1.1		11.8
Entomology	8.0	2.8	2.0			12.8							0.8	0.3	13.5
Food Science	8.4		1.0			9.4	0.5					0.5			9.9
Forestry and Wildlife Management	7.0	3.0	7.0		1.0	18.0					1.8	1.8	1.1		20.9
Hotel, Restaurant, and Travel Administration	2.5	1.0	2.5			6.0		0.5			9.0	9.5	1.6		17.1
Landscape Architecture and Regional Planning	5.8	5.5	7.0	1.0	1.0	20.3		1.0			2.1	3.1	0.3		23.7
Nutrition	1.5	3.3	1.0			5.8					1.0	1.0			6.8
Plant and Soil Sciences	9.6	7.5	6.0		1.0	24.1	0.1	0.8			0.1	0.9			25.0
Plant Pathology	4.0	0.6	1.4			6.0									6.0
Resource Economics	6.4	4.0	1.5			11.9								0.1	12.0
Veterinary and Animal Sciences	6.4	3.5	3.0		2.0	14.9					1.1	1.1		0.3	16.3
TOTAL	60.5	35.9	33.4	1.0	5.8	136.6	0.6	2.1			19.1	21.9	5.0	0.9	164.3
MANAGEMENT															
Dean's Area, MGT	1.0					1.0			0.3		0.1	0.4	7.3	0.6	9.3
Accounting	4.0	6.0	2.5			12.5	0.5				0.7	1.2			13.7
General Business and Finance	5.0	3.5	4.0			12.5	0.3	1.0				1.3			13.8
Management	1.0	5.4	4.5			10.9	0.5		1.0		0.5	2.0			12.9
Marketing	2.9	4.5	1.0			8.4			1.0		1.0	2.0		0.3	10.7
TOTAL	13.9	19.4	12.0			45.3	1.3	1.0	2.3		2.3	6.8	7.3	0.9	60.2
NURSING															
Nursing		3.3	10.4			13.6			1.5			1.5	0.3		15.4
TOTAL		3.3	10.4			13.6			1.5			1.5	0.3		15.4
PHYSICAL EDUCATION															
Dean's Area, PHE					0.5	0.5					0.5	0.5			1.0
Director of Athletics					1.0	1.0								0.6	1.6
Exercise Science	2.5	4.0	0.5			7.0							1.3	0.1	8.4
Professional Preparation	1.0	3.0	0.5			4.5							0.6		5.1
Sports Studies	3.0	1.0	1.0		1.0	6.0					0.8	0.8	1.4	0.1	8.2
TOTAL	6.5	8.0	2.0		2.5	19.0					1.1	1.1	3.3	0.9	24.3

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University of Massachusetts at Amherst
FULL-TIME EQUIVALENT INSTRUCTIONAL RESOURCES
Academic Year 1991-92

[1]	[2] TENURED, TENURE-TRACK & QUASI-BASE FACULTY						[3] NON-TENURE TRACK FACULTY						[4]	[5]	
Department or Program	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	Prof.	Assoc.	Asst.	Inst.	Lect.	Total	TEACHING ASSISTANTS Total	NON-FACULTY Total	TOTAL
PUBLIC HEALTH															
Communication Disorders	3.5	3.5	1.0			8.0	0.5					0.5	0.3		8.8
Public Health	9.0	5.5	1.8			16.3	0.3	0.3	0.4			0.9	1.2		18.3
TOTAL	12.5	9.0	2.8			24.3	0.8	0.3	0.4			1.4	1.4		27.1
OTHER															
Other Programs		1.0				1.0							8.7	2.0	9.7
Provost's Office													2.3		2.3
University Without Walls					2.0	2.0					0.4	0.4		0.9	3.3
Writing Program													32.0	0.5	32.5
TOTAL		1.0			2.0	3.0					0.4	0.4	40.9	3.4	47.7
TOTAL	579.7	278.7	155.9	1.0	24.2	1,039.5	13.5	9.3	16.2		47.6	86.5	175.5	12.4	1,311.9

APPENDIX A

Instructional Resources

Overview

Instruction on the Amherst campus is provided by several categories of employees. This table shows the number of instructors, broken down by category. All numbers are expressed as "full-time equivalents" (FTEs), meaning the number of instructors there would be if all instructors had full-time appointments. "Instruction," as used here, is narrowly defined. It includes only those activities which generate student credit hours (SCH). Many aspects of teaching (e.g., supervision of labs or discussion sections for which no separate credit is awarded, student advising, supervision of some remedial work) do not generate credits and are therefore not reflected here.

[1] **Department or Program.** Instructional personnel are usually associated with one of the departments or programs which offer courses and/or enroll students as majors. Exceptions include the various "Dean's Areas," which serve as budgetary home to faculty who may serve as an associate or assistant dean or in some other capacity; and a small number of administrative or service units (such as the student counseling center) which may be headed or partially staffed by faculty members. All instructional resources are reported according to the department or program to which they are budgeted, regardless of where their teaching occurs.

[2] **Tenured, Tenure-Track and "Quasi-Base" Faculty.** This group, often called the "base," "regular," or "ranked" faculty, includes all instructional personnel who have received tenure or who have been appointed to positions for which tenure can be granted. It also includes a small group of non-tenure-track personnel who are filling positions generally considered to be equivalent to the tenure-track group for budgetary purposes. All faculty in this group hold one of the five academic ranks employed at UMass/Amherst: professor (sometimes referred to as "full" professor), associate professor, assistant professor, instructor, and lecturer. For this group of instructional personnel data are reported in terms of "available" faculty (i.e. all faculty appointments, less those on sabbatical or leave without pay) paid from state funds. It represents the total number of faculty positions which *could* be utilized for teaching, regardless of other responsibilities (research, administrative duties, etc.) which might reduce a faculty member's actual teaching load (see Figure 1.1). For this group, full-time equivalency refers to the actual appointment percentage posted on the Human Resources Management Information System (HRMIS).

[3] **Non-Tenure Track Faculty.** A small number of faculty appointments are made without the expectation of tenure. This group includes visiting and other temporary faculty. Not all of these individuals are hired with the expectation that they will be engaged in teaching. Unlike the "base" faculty, therefore, data are reported in terms of actual state-funded FTEs engaged in instruction (see Overview), rather than FTEs "available" for teaching (see Figure 1.1). Full-time equivalency refers to the HRMIS appointment percentage.

[4] **Teaching Assistants.** Graduate teaching assistants (TAs) make up a significant fraction of instructional personnel. Some TAs serve as the primary instructor for a lecture course (almost always at the introductory level), but most assist regular faculty by leading discussion sections, grading, supervising student lab work, and performing similar tasks. As noted above, for the purposes of this report "instruction" is tied to credit-bearing activity. If a TA's work is associated with a lab or discussion section, therefore, no credit is generated (since the credits are carried by the lecture section) and the TA will not appear in this table as an instructional resource. Like the non-tenure track faculty, the resources shown represent TAs actually teaching, not those "available" to teach (see Figure 1.1). While differences exist from department to department, a "full-time" TA is generally considered to be equivalent to one-half of a faculty FTE in terms of instruction, and data are reported here on that basis.

[5] **Non-Faculty.** A few lecture courses are taught by employees who do not have faculty status (an administrator, for example, might teach a course on planning in higher education offered by the School of Education). By definition, they appear in this report only if they are teaching (see Figure 1.1). Since none of their appointment is based on the expectation of teaching, there is no basis for reporting "faculty" FTE. As a convention, each non-faculty employee engaged in instruction has been counted as .25 faculty FTE.

Figure 1.1: Reporting Basis for Instructional Resources

The resources shown are:

	Available	Teaching
Tenured, Tenure-track and "Quasi-Base" Faculty	✔	
Non-Tenured Faculty		✔
Teaching Assistants (TAs)		✔
Non-Faculty		✔

Available for teaching, regardless of other responsibilities which might reduce teaching load.

Only those resources actually engaged in teaching.

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University of Massachusetts at Amherst

Selected Recent Assessments of Faculty Activity

	Description	Source/ Sponsor	Date	Level of Analysis: Department	Level of Analysis: Faculty	Teaching: Enrollment	Teaching: Faculty	Teaching: Student/ Faculty Ratios	Teaching: Instruction Produced	Teaching: Induced Instructional Load	Teaching: Degrees Granted	Teaching: Teaching Performance	Scholarship & Research: Scholarly Products	Scholarship & Research: Research Grants	Scholarship & Research: Scholarly Reputation	Public Service: Public Service Activity
Ongoing Management Systems and Reports																
Annual Faculty Report	Detailed accounting of each faculty member's activity in teaching, advising, scholarship and research, and public service. Reviewed by department head and dean, with comments.	Faculty members	Annual		•				•				•	•		•
Instructional Activity System	Management reporting system linking individual instructors with courses. Used to produce numerous management reports (student/faculty ratios, etc.).	Departments, course schedule and enrollment files	Semesterly	•	•		•	•	•							
Faculty Publications	Publication of all "scholarly products" (publications, performances, etc.).	AFR	Annual	•	•								•			
Sponsored Activities	All grants and contracts sought by and awarded to faculty and staff.	OGCA	Quarterly, Annual	•	•									•		
Admissions and Enrollment Report	Students enrolled and instruction produced.	OIRP	Semesterly	•		•			•	•						
Report of Degrees Granted	All degrees awarded during the academic year.	OIRP	Annual	•							•					
Teaching Evaluation	Student assessment of teaching. Instruments vary by department.	Departments	Semesterly	•	•							•				
Internal Management Reviews																
"College Review" Process	Detailed review of schools and colleges to determine allocation of faculty positions made available through retirement.	OIRP	1985 and 1987	•		•	•	•	•		•					
Program and Budget Review	Detailed review of schools and colleges (one per year) to establish short and long-term plans.	OIRP	Annual (1987-90)	•		•	•	•	•		•					
Faculty Reallocation Process	Detailed review of schools and colleges initiated to reallocate faculty positions made available through retirement, but adapted to allocate budget cuts.	OIRP	1988-89, 1990 and 1991	•		•	•	•	•		•		•	•		

APPENDIX B

University of Massachusetts at Amherst

Selected Recent Assessments of Faculty Activity

Description	Source/ Sponsor	Date	Level of Analysis: Depart ments	Level of Analysis: Faculty	Teaching: Enrollments	Teaching: Faculty	Teaching: Student/ Faculty Ratios	Teaching: Instruction Produced	Teaching: Induced Instruct- ional Load	Teaching: Degrees Granted	Teaching: Teaching Perform- ance	Scholarship & Research: Scholarly Products	Scholarship & Research: Research Grants	Scholarship & Research: Scholarly Reputation	Public Service: Public Service Activity
Internal Management Reviews (continued)															
SADRI Scholarly Productivity Study	Study of faculty "scholarly products" over five-year period, conducted by the Social and Demographic Research Institute.	AFR/SADRI	1988, 1990 and 1991	•								•	•		
Undergraduate Teaching/Ranked Faculty Index	Study of the ratio of undergraduate FTE instructed Students to "ranked" faculty over a four-year period.	OIRP	1988	•			•	•	•						
Analysis of Teaching Resources	Study of "ranked" faculty and Teaching Assistant (TA) resources, with calculation of several teaching ratios.	OIRP	1988	•			•	•	•						
Directory of University Resources for Government, Business, and Industry	Comprehensive listing of faculty and staff resources engaged in public service activities of interest to government, business, and industry.	UM President's Office	1987	•	•										•
External reviews															
Statewide Program Review/Institutional Program Review/Status Reports	Comprehensive review of each academic program on a five-year cycle conducted by the Board of Regents of Higher Education (BOR) (now Higher Education Coordinating Council (HECC).	BOR/HECC	Annual	•		•	•		•		•	•			
Accreditation (Institutional)	Comprehensive external review for the the purpose of renewing UMA's accreditation from the New England Association of Schools and Colleges (NEASAC)	NEASAC	Every ten years (most recent, 1988 89)	•		•	•	•	•						
Accreditation (Programmatic)	In addition to institutional accreditation, 28 programs are individually accredited within the discipline.	Various disciplinary accrediting agencies	Varies (from every 3 to every 10 years)	•		•	•	•	•		•		•	•	•
An Assessment of Research-Doctorate Programs in the United States	National reputational survey of research-doctorate programs conducted by the Conference Board of Associated Research Councils (ARC).	ARC	Every ten years (most recent 1982)	•		•	•			•	•		•	•	•

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University of Massachusetts at Amherst

STUDENT/FACULTY RATIOS

Academic Years, 1988-89 to 1991-92

[1]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]
	1988-89			1989-90			1990-91			1991-92		
Department	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio
HUMANITIES AND FINE ARTS										1.0		
Dean's Area, HFA										8.5	147.7	17.4
Afro-American Studies	12.0	143.9	12.0	9.5	147.0	15.5	9.0	153.0	17.0	30.0	375.4	12.5
Art	32.0	409.4	12.8	34.5	445.7	12.9	34.5	432.9	12.5	7.0	90.7	13.0
Asian Languages and Literatures	5.5	43.4	7.9	5.0	51.4	10.3	8.0	96.5	12.1	5.5	182.5	33.2
Classics	8.5	209.9	24.7	7.5	127.1	16.9	7.5	210.8	28.1	10.0	181.3	18.1
Comparative Literature	13.8	201.6	14.7	10.3	165.8	16.1	10.5	172.7	16.4	55.5	649.8	11.7
English	55.7	702.1	12.6	55.3	667.1	12.1	58.6	691.2	11.8	13.5	152.0	11.3
French and Italian	19.5	186.3	9.6	15.8	156.2	9.9	14.5	127.0	8.8	10.0	96.4	9.6
Germanic Languages and Literatures	9.5	76.3	8.0	11.0	80.5	7.3	11.5	89.0	7.7	32.2	620.2	19.3
History	34.8	889.3	25.7	35.5	874.7	24.8	38.8	758.7	20.8		0.2	
Interpreter's Studies		0.5			0.1			0.1		7.0	84.4	12.1
Journalism	8.4	75.2	9.0	8.5	71.8	8.5	7.5	81.2	10.8	4.5	76.4	16.9
Judaic and Near Eastern Studies	5.5	73.0	13.3	6.0	70.9	11.8	5.7	67.9	11.9		0.1	
Latin American Studies					0.2			0.2		10.0	69.8	7.0
Linguistics	7.8	65.8	8.6	6.5	53.3	8.2	10.3	68.7	6.7	34.0	306.1	9.0
Music and Dance	37.8	382.8	10.1	37.3	359.9	9.7	40.3	348.0	8.6	11.8	315.5	27.1
Philosophy	12.0	253.8	21.1	13.1	317.4	24.2	13.0	332.8	25.6	4.5	44.8	9.9
Slavic Languages and Literatures	5.5	46.9	8.5	6.5	55.3	10.1	4.5	46.8	10.4		0.1	
Soviet and East European Studies					0.7			0.1		14.4	154.2	10.7
Spanish and Portuguese	16.8	170.6	10.2	15.0	154.3	10.3	15.6	170.3	10.9	7.0	58.1	8.3
Theater	12.0	146.2	12.2	11.0	146.0	13.3	8.5	130.4	15.3	5.4	67.0	12.5
Women's Studies	4.8	53.3	11.2	4.5	93.5	20.8	3.9	63.2	16.4			
TOTAL	301.4	4,130.2	13.7	291.7	4,036.5	13.8	300.1	4,041.0	13.5	271.7	3,672.2	13.5
NATURAL SCIENCES AND MATHEMATICS												
Biochemistry and Molecular Biology	12.0	54.3	4.5	10.4	52.2	5.0	10.2	51.1	5.0	10.2	55.4	5.4
Botany	15.3	157.8	10.3	15.5	159.2	10.3	12.0	105.4	8.8	9.5	110.1	11.6
Chemistry	32.6	621.4	19.1	32.8	628.3	19.2	31.5	585.8	18.6	28.0	628.3	22.4
Computer and Information Science	22.3	226.8	10.2	23.5	302.1	12.8	24.0	254.1	10.6	21.8	262.4	12.0
Geology and Geography	22.0	315.9	14.4	22.5	391.1	17.4	20.0	353.9	17.7	17.8	340.5	19.2
Mathematics and Statistics	53.0	610.9	11.5	51.8	441.0	8.5	52.6	419.3	8.0	49.2	397.4	8.1
Microbiology	10.0	169.8	17.0	11.5	189.9	16.5	11.1	191.4	17.2	12.0	190.9	15.9
Molecular and Cellular Biology		26.0			26.0			31.1			26.2	
Physics and Astronomy	48.8	631.7	13.0	51.4	585.3	11.4	50.2	556.2	11.1	50.2	514.8	10.3
Polymer Science and Engineering	11.5	87.0	7.8	10.5	75.1	7.2	11.5	74.5	6.5	10.4	87.9	8.5
Zoology	26.3	339.7	12.9	27.7	354.7	12.8	24.5	359.8	14.7	23.5	342.8	14.6
TOTAL	253.7	3,243.1	12.8	257.8	3,204.9	12.4	247.7	2,982.3	12.0	232.8	2,938.7	12.6

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STUDENT/FACULTY RATIOS

Academic Years, 1988-89 to 1991-92

[1]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]
	1988-89			1989-90			1990-91			1991-92		
Department	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio
SOCIAL AND BEHAVIORAL SCIENCES												
Dean's Area, SBS										1.0		
Anthropology	13.0	288.3	22.2	14.0	275.8	19.7	15.5	278.1	17.9	14.5	295.9	20.4
Communication	22.0	398.4	18.1	21.5	434.9	20.2	21.0	411.0	19.6	16.5	364.5	22.1
Economics	25.0	630.1	25.2	26.0	684.6	26.3	27.0	600.0	22.2	23.8	544.0	22.8
Labor Studies	2.0	19.4	9.7	2.0	21.7	10.8	1.0	13.4	13.4	0.5	10.0	20.1
Legal Studies	5.5	124.2	22.6	5.0	125.3	25.1	6.0	147.8	24.6	5.5	131.4	23.9
Political Science	22.5	469.9	20.9	23.8	514.2	21.7	20.6	454.4	22.1	18.8	386.8	20.6
Psychology	46.5	581.1	12.5	40.5	853.5	21.1	40.3	899.3	22.3	36.5	819.8	21.3
Social Thought and Political Economy		4.0			7.7			6.0			7.1	
Sociology	27.5	623.2	22.7	26.2	674.7	25.8	22.0	572.7	26.0	21.8	585.5	26.9
TOTAL	164.0	3,138.6	19.1	158.9	3,592.3	22.6	153.4	3,382.7	22.0	140.9	3,144.8	22.3
COLLEGE OF ARTS AND SCIENCES												
BDIC Program		9.8			7.5			6.3			9.8	
CASIAC		0.0			0.2			0.0		0.5	11.1	
Neuroscience and Behavior		9.9			12.2			11.8			12.4	
Office of Deans										0.5	5.1	
University Internship Program		10.8			9.0			13.7			9.4	
TOTAL		30.6			28.8			31.7		1.0	47.8	
EDUCATION												
Education	79.8	1,596.0	20.0	70.6	1,411.3	20.0	67.5	1,312.7	19.5	62.1	1,138.3	18.3
TOTAL	79.8	1,596.0	20.0	70.6	1,411.3	20.0	67.5	1,312.7	19.5	62.1	1,138.3	18.3
ENGINEERING												
Dean's Area, ENG	1.0	49.4	49.4	1.0	16.0	16.0	1.0	30.7	30.7	2.0	29.1	14.6
Chemical Engineering	13.7	147.4	10.8	13.2	122.8	9.3	14.7	153.8	10.5	12.2	127.9	10.5
Civil Engineering	20.0	138.6	6.9	19.0	175.7	9.2	18.2	240.9	13.2	16.8	228.6	13.6
Electrical and Computer Engineering	36.1	420.9	11.7	32.0	324.1	10.1	33.5	334.7	10.0	31.0	359.5	11.6
Engineering		0.1			1.0			1.6			1.9	
Industrial Engineering & Operations Research	13.0	128.6	9.9	11.4	144.4	12.7	9.5	105.2	11.1	7.0	74.2	10.6
Mechanical Engineering	24.8	308.7	12.5	23.0	255.9	11.1	21.5	232.2	10.8	21.5	206.3	9.6
TOTAL	108.5	1,193.7	11.0	99.6	1,039.7	10.4	98.4	1,099.1	11.2	90.5	1,027.3	11.4

APPENDIX C

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STUDENT/FACULTY RATIOS

Academic Years, 1988-89 to 1991-92

[1]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]
	1988-89			1989-90			1990-91			1991-92		
Department	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio
FOOD AND NATURAL RESOURCES												
Dean's Area, FNR	1.5			1.0								
Consumer Studies	8.1	108.0	13.4	7.6	77.1	10.2	7.1	61.5	8.7	7.6	67.5	8.9
Eastern Massachusetts Extension Center	6.0	1.2	0.2	5.6	7.7	1.4						
Entomology	13.0	44.2	3.4	12.5	40.9	3.3	11.1	40.1	3.6	12.6	48.6	3.9
Food Engineering	5.5	39.0	7.1	4.5	26.9	6.0		5.5			2.6	
Food Science	19.4	253.7	13.1	12.4	167.5	13.5	10.9	83.8	7.7	9.4	91.3	9.7
Forestry and Wildlife Management	17.5	119.0	6.8	18.5	119.5	6.5	18.0	140.1	7.8	18.0	149.2	8.3
Hotel, Restaurant, and Travel Administration	10.5	252.6	24.1	12.0	241.5	20.1	10.0	227.7	22.8	6.0	159.9	26.7
Landscape Architecture & Regional Planning	21.0	361.6	16.6	18.0	238.6	13.3	19.6	336.6	17.1	20.3	295.2	14.5
Nutrition				5.8	96.6	16.8	4.9	73.1	14.9	5.8	147.1	25.2
Plant and Soil Sciences	21.8	173.9	8.0	19.8	175.2	8.8	26.6	217.0	8.2	24.1	235.2	9.7
Plant Pathology	7.0	28.7	4.1	6.5	28.2	4.4	6.6	28.3	4.3	6.0	27.1	4.5
Resource Economics	14.1	140.5	9.9	14.2	157.6	11.1	13.4	183.9	12.3	11.9	166.6	14.1
Veterinary and Animal Sciences	15.9	113.8	7.2	15.9	105.8	6.6	15.9	110.7	7.0	14.9	128.6	8.6
TOTAL	161.2	1,666.2	10.3	154.3	1,484.9	9.6	144.0	1,488.4	10.3	136.6	1,518.9	11.1
MANAGEMENT												
Dean's Area, SOM	3.0	35.5	11.8	3.0	56.6	18.9	2.0	39.4	19.7	1.0	7.7	7.7
Accounting	12.4	308.6	24.9	12.3	262.5	21.3	12.8	233.9	18.3	12.5	244.3	19.5
General Business and Finance	18.4	306.5	16.7	18.0	218.6	12.1	16.5	217.8	13.2	12.5	166.8	13.3
Management	20.2	336.1	16.6	13.8	241.6	17.5	15.6	242.3	15.5	10.9	157.3	14.4
Marketing	8.8	84.4	9.6	8.4	70.9	8.4	9.4	97.9	10.4	8.4	76.6	9.1
School of Management		47.7			33.8			23.8			28.1	
TOTAL	62.8	1,119.0	17.8	55.5	884.0	15.9	56.4	855.0	15.2	45.3	680.8	15.0
NURSING												
Nursing	14.4	93.3	6.5	15.8	122.5	7.8	13.9	117.4	8.5	13.6	130.3	9.6
TOTAL	14.4	93.3	6.5	15.8	122.5	7.8	13.9	117.4	8.5	13.6	130.3	9.6
PHYSICAL EDUCATION												
Dean's Area, PHE	1.0			0.5						0.5	4.1	8.2
Director of Athletics	2.5	8.9	3.6	2.0	6.7	3.4	1.0	1.1	1.1	1.0		
Exercise Science	7.5	185.5	24.7	7.0	165.7	23.7	8.0	187.8	23.5	7.0	186.2	26.6
Physical Education		1.2			1.4			2.8			5.4	
Professional Preparation	7.0	37.7	5.4	7.0	41.3	5.9	6.0	42.2	7.0	4.5	20.7	4.6
Sports Studies	6.3	121.1	19.4	6.5	137.2	21.1	7.0	145.1	20.7	6.0	117.4	19.6
TOTAL	24.3	354.5	14.6	23.0	352.3	15.3	22.0	379.0	17.2	19.0	333.8	17.6

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STUDENT/FACULTY RATIOS

Academic Years, 1988-89 to 1991-92

[1]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]	[2]	[3]	[4]
	1988-89			1989-90			1990-91			1991-92		
Department	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio	FTE Faculty	FTE Instructed Students	Student/ Faculty Ratio
PUBLIC HEALTH												
Dean's Area, PUB	0.9	3.2	3.6									
Communication Disorders	10.0	81.1	8.1	9.5	111.2	11.7	9.0	112.1	12.5	8.0	106.8	13.3
Public Health	25.5	189.3	7.4	25.0	263.8	10.6	19.5	234.1	12.0	16.3	248.5	15.3
TOTAL	36.4	273.7	7.5	34.5	375.0	10.9	28.5	346.2	12.1	24.3	355.3	14.6
OTHER												
Other Programs	3.0	8.0	2.7	3.5	5.2	1.5	2.0	4.8	2.4	1.0	7.5	7.5
University Without Walls	3.0	39.0	13.0	2.3	27.1	12.0	2.5	33.1	13.2	2.0	27.9	13.9
TOTAL	6.0	47.0	7.8	5.7	32.3	5.7	4.5	37.9	8.4	3.0	35.4	11.8
TOTAL	1,212.5	16,885.8	13.9	1,167.3	16,586.8	14.2	1,136.3	16,073.3	14.1	1,040.5	15,023.5	14.4

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APPENDIX C

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Student:Faculty Ratios

Overview

Student:Faculty ratios describe, at a gross level, the faculty resources available to teach students. There is no standard method of calculating ratios, so it is important — especially when comparing data across institutions — to understand what the data represent. For this report, ratios were calculated by dividing the total number of students (expressed in full-time equivalents) by the number of FTE tenured, tenure-track and "quasi-base" faculty Unlike many calculations of this kind, only those FTE students actually generated in the courses taught by the "base" faculty were counted. Student FTEs generated by other instructional personnel were not counted, so this table provides a conservative view of student:faculty ratios.

[1] **Department or Program.** In the case of faculty, the department or program represents the unit to which the faculty are budgeted. In the case of "direct classroom" instruction (see below), the department or program represents the unit to which the faculty member providing the instruction is budgeted. For "other" instruction (see below), however, it is not possible to link instruction with the individual faculty members who provide it. Therefore, in the case of "other" instruction, the department or program represents the unit *offering* the instruction (i.e. listing the course) regardless of the funding source of the faculty providing the instruction. This means that there is not a perfect one-to-one relationship between FTE faculty and FTE Instructed Students in each unit. Some instruction is listed under units which have no faculty (such as Social Thought and Political Economy) thereby making it impossible to calculate a ratio for that unit. The subtotals at the school/college level and the grand total include all instructional resources and all instruction, even if not included in one of the departmental ratios.

[2] **Full-Time Equivalent (FTE) Faculty.** This group, often called the "base," "regular," or "ranked" faculty, includes all instructional personnel who have received tenure or who have been appointed to positions for which tenure can be granted. It also includes a small group of non-tenure-track personnel who are filling positions generally considered to be equivalent to the tenure-track group for budgetary purposes. All faculty in this group hold one of the five academic ranks employed at UMass/Amherst: professor (sometimes referred to as "full" professor), associate professor, assistant professor, instructor, and lecturer. For this group of instructional personnel data are reported in terms of "available" faculty (i.e. all faculty appointments, less those on sabbatical or leave without pay) paid from state funds. It therefore represents the total number of faculty positions which *could* be utilized for teaching, regardless of other responsibilities (research, administrative duties, etc.) which might reduce a faculty member's actual teaching load. For this group, full-time equivalency refers to the actual appointment percentage posted on the Human Resources Management Information System (HRMIS). These are the same data reported in Table 1, column 2, and exclude the other categories of instructional personnel.

[3] **FTE Instructed Students — Direct Classroom.** For this report, the "student" side of the equation is measured in full-time equivalent instructed students (FTEIS). One FTEIS equals the number of student credit hours which represents a "full" course load. At the undergraduate level a full load is considered to be 15 credits; at the graduate level, 9. The great majority of FTEIS are generated in "direct classroom" instruction, scheduled lecture courses (often with associated discussion or laboratory sections) which usually carry 3 credits.

[4] **FTE Instructed Students — Other Instruction.** Some instruction occurs outside the typical lecture course through activities such as independent study, practica, and thesis and dissertation supervision. These activities carry academic credit and therefore generate FTEIS.

[5] **Total FTE Instructed Students.** The sum of "Direct Classroom" and "Other" instruction.

[6] **Student:Faculty Ratio.** The product which results when total FTE Instructed Students are divided by FTE Faculty (column 5/column 2).

APPENDIX C

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University of Massachusetts at Amherst
FACULTY CONTACT HOURS
Academic Year 1991-92

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		DIRECT CLASSROOM		OTHER INSTRUCTION		HONORS THESIS/ GRADUATE SUPERVISION				
Department or Program	Faculty FTE	Lecture	Lab/ Discussion	Independent Study	Practica	Thesis	Dissertation	Program Fee	TOTAL CONTACT	Contact Hours Per FTE Faculty
HUMANITIES AND FINE ARTS										
Dean's Area, HFA	1.0									
Afro-American Studies	8.5	62.0		18.5	0.6				81.1	9.5
Art	30.0	493.8	18.0	49.1	4.2	46.5		2.4	611.9	20.4
Asian Languages and Literatures	7.0	90.3		4.0	1.8				96.1	13.7
Classics	5.5	62.1		7.3	0.1				69.5	12.6
Comparative Literature	10.0	44.0	8.4	6.4	0.4	0.8	15.5	3.1	78.6	7.9
English	55.5	306.7	13.5	38.9	8.0	28.5	233.0	20.4	649.0	11.7
French and Italian	13.5	112.1	4.5	3.7	0.1		29.5	0.6	150.5	11.1
Germanic Languages and Literatures	10.0	63.8		2.6			8.0	4.8	78.9	7.9
History	32.2	183.2	4.1	21.8	4.8	9.0	35.0	6.5	264.3	8.2
Interpreter's Studies				0.6					0.6	
Journalism	7.0	52.2		9.5	4.4				66.1	9.4
Judaic and Near Eastern Studies	4.5	30.9		2.8	1.3				34.9	7.7
Latin American Studies				0.3					0.3	
Linguistics	10.0	69.2	0.6	2.3			81.5	3.8	157.4	15.7
Music and Dance	34.0	440.9	4.5	6.1		1.5		0.6	453.6	13.3
Philosophy	11.6	58.5	0.6	4.6	1.4	3.0	125.5	7.3	200.8	17.2
Slavic Languages and Literatures	4.5	49.5		5.2					54.7	12.1
Soviet and East European Studies				0.2						
Spanish and Portuguese	14.4	105.6		6.6		4.5	45.0	5.6	167.3	11.6
Theater	7.0	117.6	8.6	2.9	1.1	3.0		0.8	134.0	19.1
Women's Studies	5.4	19.4		5.2	6.1				30.7	5.7
TOTAL	271.7	2,361.4	60.8	198.3	34.2	96.8	573.0	55.8	3,380.0	12.4
NATURAL SCIENCES AND MATHEMATICS										
Biochemistry and Molecular Biology	10.2	48.1	2.0	7.2					57.3	5.6
Botany	9.5	54.0	12.0	4.8		2.5	12.0	1.4	86.7	9.1
Chemistry	28.0	150.7	50.0	1.8		8.0	147.0	13.0	370.6	13.2
Computer and Information Science	21.8	81.2	3.0	36.6	0.4		95.0	13.3	229.4	10.5
Geology and Geography	17.8	121.2	35.9	5.8	0.8	22.5	34.0	8.1	228.2	12.9
Mathematics and Statistics	49.2	259.0		9.5			66.0	1.9	336.4	6.8
Microbiology	12.0	61.9	1.7	8.3	1.8		31.5	4.1	109.3	9.1
Molecular and Cellular Biology				13.5		8.3	72.0	7.0	100.8	
Physics and Astronomy	50.2	156.5	48.0	7.3	0.5	3.0	97.0	5.9	318.2	6.3
Polymer Science and Engineering	10.4	59.1	4.3	0.5			96.0	11.4	171.2	16.5
Zoology	23.5	83.0	29.5	15.6	2.8	4.3	36.5	4.1	175.7	7.5
TOTAL	232.6	1,074.6	186.4	110.6	6.2	48.5	687.0	70.1	2,183.7	9.4

APPENDIX D

University of Massachusetts at Amherst
FACULTY CONTACT HOURS
Academic Year 1991-92

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		DIRECT CLASSROOM		OTHER INSTRUCTION		HONORS THESIS/ GRADUATE SUPERVISION				
Department or Program	Faculty FTE	Lecture	Lab/ Discussion	Independent Study	Practica	Thesis	Dissertation	Program Fee	TOTAL CONTACT	Contact Hours Per FTE Faculty
SOCIAL AND BEHAVIORAL SCIENCES										
Dean's Area, SBS	1.0									
Anthropology	14.5	106.6		17.2	0.9	11.8	33.5	12.0	182.0	12.5
Communication	16.5	110.5	8.0	21.0	10.3	7.5	81.0	9.4	247.8	15.0
Economics	23.8	130.1	3.5	7.7	0.8		110.5	14.3	266.8	11.2
Labor Studies	0.5	3.3		4.7		5.3		0.5	13.7	
Legal Studies	5.5	32.0	1.7	5.8	13.6				53.0	9.6
Political Science	18.8	125.6	1.7	4.8	5.0		42.5	8.8	188.1	10.0
Psychology	38.5	184.0	6.5	16.1	65.8	19.8	96.0	4.0	392.1	10.2
Social Thought and Political Economy				15.0	0.7				15.7	
Sociology	21.8	118.9	1.8	19.3	1.8	3.0	36.5	6.8	188.0	8.6
TOTAL	140.9	811.0	23.1	111.3	99.0	47.3	400.0	55.8	1,547.2	11.0
COLLEGE OF ARTS AND SCIENCES										
BDIC Program				13.1	4.6				17.7	
CASIAC	0.5	2.5							2.5	5.0
Neuroscience and Behavior				4.1			68.0	1.6	73.7	
Office of Deans	0.5	4.4	2.3						6.8	13.5
University Internship Program					11.8				11.8	
TOTAL	1.0	6.9	2.3	17.2	16.3		68.0	1.6	112.4	
EDUCATION										
Education	62.1	526.9	10.2	126.3	161.2		1,246.5	96.6	2,167.7	34.9
TOTAL	62.1	526.9	10.2	126.3	161.2		1,246.5	96.6	2,167.7	34.9
ENGINEERING										
Dean's Area, ENG	2.0	3.8							3.8	1.9
Chemical Engineering	12.2	72.2	18.5	5.3		13.5	102.0	4.5	215.9	17.7
Civil Engineering	16.8	110.2	63.5	3.6		8.3	43.5	6.1	235.1	14.0
Electrical and Computer Engineering	31.0	122.1	34.7	17.8		35.5	239.0	21.9	470.9	15.2
Engineering				4.7					4.7	
Industrial Engineering and Operations Research	7.0	44.8	9.0	6.3		12.5	28.5	5.9	107.0	15.3
Mechanical Engineering	21.5	100.7	45.0	18.3		39.5	77.5	11.0	292.0	13.6
TOTAL	90.5	453.7	170.6	55.8		109.3	490.5	49.4	1,329.2	14.7

APPENDIX D

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University of Massachusetts at Amherst
FACULTY CONTACT HOURS
Academic Year 1991-92

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
		DIRECT CLASSROOM		OTHER INSTRUCTION		HONORS THESIS/ GRADUATE SUPERVISION				
Department or Program	Faculty FTE	Lecture	Lab/ Discussion	Independent Study	Practica	Thesis	Dissertation	Program Fee	TOTAL CONTACT	Contact Hours Per FTE Faculty
FOOD AND NATURAL RESOURCES										
Consumer Studies	7.6	54.3		5.7	3.5	3.8		0.6	67.9	9.0
Entomology	12.6	39.9	7.4	8.3	0.3	7.8	25.0	2.6	91.2	7.3
Food Engineering				0.9		0.8		1.4	3.0	
Food Science	9.4	36.2	13.4	1.8		14.0	56.0	1.8	123.1	13.1
Forestry and Wildlife Management	18.0	79.7	48.0	11.8	0.6	22.8	10.5	5.3	178.8	9.9
Hotel, Restaurant, and Travel Administration	6.0	54.6	25.5	7.7	0.5	6.0		2.4	96.6	16.1
Landscape Architecture and Regional Planning	20.3	189.6	21.5	26.8	24.3	12.3	15.0	7.9	297.4	14.6
Nutrition	5.8	31.0	1.7	3.1	0.5	2.5	10.5	1.8	50.9	8.7
Plant and Soil Sciences	24.1	96.1	41.7	8.6	12.2	17.3	32.5	2.6	210.9	8.7
Plant Pathology	6.0	18.9	13.5	0.7		3.8	7.5	0.4	44.7	7.4
Resource Economics	11.9	55.1	3.4	0.8	0.6	9.0	19.5	1.5	89.9	7.6
Veterinary and Animal Sciences	14.9	120.6	39.3	8.3	8.0	5.0	17.5	2.0	200.7	13.5
TOTAL	136.6	776.0	215.5	84.3	50.4	104.8	194.0	30.0	1,455.0	10.7
MANAGEMENT										
Dean's Area, SOM	1.0	3.0							3.0	
Accounting	12.5	88.8		2.7	4.8				96.3	
General Business and Finance	12.5	87.3		3.7	0.0				91.0	
Management	10.9	79.1		2.7					81.8	
Marketing	8.4	51.7	2.7		0.3				54.6	
School of Management				14.4			94.0	6.0	114.4	
TOTAL	45.3	310.0	2.7	23.4	5.1		94.0	6.0	441.2	9.7
NURSING										
Nursing	13.6	74.3	19.9	8.8	11.6	20.3		4.9	139.7	10.3
TOTAL	13.6	74.3	19.9	8.8	11.6	20.3		4.9	139.7	10.3
PHYSICAL EDUCATION										
Dean's Area, PHE	0.5	3.3							3.3	6.5
Director of Athletics	1.0									
Exercise Science	7.0	41.3	2.4	20.3	1.3	4.5	19.5	5.6	94.9	13.6
Physical Education				11.0	1.3				12.3	
Professional Preparation	4.5	33.5		2.3					35.8	7.9
Sports Studies	6.0	72.3		15.7	0.1			1.3	89.2	14.9
TOTAL	19.0	150.3	2.4	49.2	2.6	4.5	19.5	6.9	235.4	12.4
PUBLIC HEALTH										
Communication Disorders	8.0	37.6	5.3	8.0	9.8	3.8	25.5	1.1	91.0	11.4
Public Health	16.3	86.4	1.5	18.2	0.8	24.8	36.0	8.6	176.2	10.8
TOTAL	24.3	124.0	6.8	26.2	10.6	28.5	61.5	9.8	267.2	11.0
OTHER										
Honors Program	1.0	4.3		2.8	2.8				9.8	9.6
University Without Walls	2.0	7.8		50.7	2.3				60.5	30.2
TOTAL	3.0	11.8		53.2	5.0				70.1	23.4
TOTAL	1,040.5	6,680.9	700.8	884.7	402.3	456.8	3,834.0	386.8	13,326.8	12.8

APPENDIX D

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Faculty "Contact Hours"

Overview

Faculty "Contact Hours" are intended to represent an estimate of the time spent weekly by faculty members in direct instruction (in "contact" with students in the classroom or other instructional setting). These hours represent only part of the time devoted by faculty to their teaching responsibilities, which can also involve course preparation, grading, individual conferences with students, regular office hours, and the like. Teaching, in turn, represents only one of the activities in which faculty are expected to engage (at a public Land Grant research university like the University of Massachusetts at Amherst, faculty also carry significant responsibilities in scholarship and research and in service, both to the campus and to the public). There is no standard method of calculating faculty contact hours, so it is important to understand what the data represent. For this report, contact hours were calculated in a manner consistent with the general approach of the 1969 American Association of University Professors (AAUP) *Statement on Faculty Workload*. The AAUP Statement was developed for the purpose of guiding faculty workload assignments, not measuring faculty workload, so a number of adaptations were required. The individual column notes (see below) describe the methodology employed.

[1] **Department or Program.** In the case of faculty, the department or program represents the unit to which the faculty are budgeted
In the case of "direct classroom" instruction (see below), the department or program represents the unit to which the faculty member providing the instruction is budgeted. For "other" instruction (see below), however, it is not possible to link instruction with the individual faculty members who provide it. Therefore, in the case of "other" instruction, the department or program represents the unit *offering* the instruction (i.e. listing the course) regardless of the funding source of the faculty providing the instruction. This means that there is not a perfect one-to-one relationship between FTE faculty and contact hours in each unit. Some contact hours are listed under units which have no faculty (such as Social Thought and Political Economy) thereby making it impossible to calculate the ratio of contact hours to FTE faculty for that unit. The subtotals at the school/college level and the grand total include all FTE faculty and all contact hours, even if not included in one of the departmental ratios.

[2] **Full-Time Equivalent (FTE) Faculty.** This group, often called the "base," "regular," or "ranked" faculty, includes all instructional personnel who have received tenure or who have been appointed to positions for which tenure can be granted. It also includes a small group of non-tenure-track personnel who are filling positions generally considered to be equivalent to the tenure-track group for budgetary purposes. All faculty in this group hold one of the five academic ranks employed at UMass/Amherst: professor (sometimes referred to as "full" professor), associate professor, assistant professor, instructor, and lecturer. For this group of instructional personnel data are reported in terms of "available" faculty (i.e. all faculty appointments, less those on sabbatical or leave without pay) paid from state funds. It represents the total number of faculty positions which *could* be utilized for teaching, regardless of other responsibilities (research, administrative duties, etc.) which might reduce a faculty member's actual teaching load. For this group, full-time equivalency refers to the actual appointment percentage posted on the Human Resources Management Information System (HRMIS). T...

[3] **Direct Classroom — Lecture.** The majority of faculty contact hours are generated in "direct classroom" instruction, scheduled courses which typically carry 3 credits. Contact hours generated in these courses are included in this table only if the "primary instructor" for the course was a member of the base faculty. Contact hours were determined by examining the course schedule file and calculating the actual weekly clock hours listed for the course. In addition, .167 hours were added for each time a class met in a week, to approximate the five minutes before and after a class session during which an instructor handles administrative matters, clarifies assignments, sets up materials, etc. For courses which are listed "by arrangement" (i.e. schedule times were variable or not available prior to the course scheduling process) contact hours were set equal to credit hours (i.e. a three-credit course was assigned three contact hours)

APPENDIX D

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[4] **Direct Classroom — Lab/Discussion.** Many courses involve associated lab or discussion sections which do not carry additional credit but which meet for additional time each week. Contact hours generated in these sections are included in this table only if the "primary instructor" for the section was a member of the base faculty (lab or discussion sections directed by TAs and other instructional personnel were not included). Contact hours were determined by examining the course schedule file and calculating the actual weekly clock hours listed for the section . . . . . In addition, .167 hours were added for each time a section met in a week, to approximate the five minutes before and after a session during which an instructor handles administrative matters, clarifies assignments, sets up materials, etc.

[5] **Other Instruction — Independent Study.** Some instruction occurs outside scheduled courses on a one-to-one basis, especially with upper division undergraduates and graduate students who have already completed introductory work in a field. Independent study credit requires advance approval of the faculty member for a specific project or research topic, as well as determination of how the work will be evaluated (e.g., a final paper, oral exam, etc.). Independent Study assumes that much of the student's work will occur without direct faculty contact, and faculty contact hours are therefore not calculated at the same rate used for direct classroom instruction. Faculty contact is required, however, for the initial determination of the project, for periodic consultation and progress reports, and for evaluation of the product. For this report, one contact hour is generated for each six credit hours of Independent Study (as compared with the one-to-one rate used for direct classroom instruction — Because it is not possible to link Independent Study with individual faculty members, contact hours are shown according to the department or program offering the instruction. Since Independent Study credit can only be approved by a faculty member, all contact hours generated through Independent Study are reported on this table.

[6] **Other Instruction — Practica.** Some instruction occurs via Practica, credit granted for student experience related to an area of academic study. Some of this instruction occurs through University-supervised internships, and some is individually negotiated with a faculty member. All Practica require advance faculty approval. Study of this kind assumes that most of the student's work will occur without direct faculty contact, and faculty contact hours are therefore not calculated at the same rate used for direct classroom instruction. Faculty contact is required, however, for initial consultation and often for progress evaluation and evaluation of the experience. For this report, one contact hour is generated for each twelve credit hours of Practica (as compared with the one-to-six rate used for Independent Study). Because it is not possible to link Practica with individual faculty members, contact hours are shown according to the department or program offering the instruction. Since Practica credit can only be approved by a faculty member, all contact hours generated through Practica are reported on this table.

[7] **Other Instruction — Thesis.** The supervision of graduate thesis and dissertation work is an important part of instruction at a major research university. Faculty members work closely with students as members of the committees supervising each student's progress. Committee work involves helping the student identify and refine the thesis or dissertation topic, consulting on and approving research design, frequent consultation while work progresses, review of and detailed comment on the thesis or dissertation in its various stages, consultation on data sources and methods, and review and approval of the final product. Academic credit is awarded to the student through thesis or dissertation credits, although it is understood that work often continues well beyond the limited period of time (usually two semesters) during which credits are awarded. At the Master's level, many programs require or permit the thesis. For this report, one contact hour is generated for each two credit hours of thesis work (as compared with the one-to-one rate used for direct classroom instruction — . . . .). Because it is not possible to link thesis credits with individual faculty members, contact hours are shown according to the department or program offering the instruction. Since thesis credits can only be supervised by a faculty member, all contact hours generated through thesis credits are reported on this table. Note: this table also reflects a small number of credits awarded to undergraduates for work associated with Honors theses. For the purposes of this report, undergraduate Honors theses and Master's theses are treated equivalently in terms of faculty contact hours.

[8] **Other Instruction — Dissertation.** Some faculty supervision of graduate work (see note 7) is reflected in doctoral dissertation credits. All doctoral programs require the dissertation. For this report, one contact hour is generated for each credit hour of dissertation work (equivalent to the one-to-one rate used for direct classroom instruction, and compared with the one-to-two rate used for Master's theses — . . . .). Because it is not possible to link dissertation credits with individual faculty members, contact hours are shown according to the department or program offering the instruction. Since dissertation credits can only be supervised by a faculty member, all contact hours generated through dissertation credits are reported on this table.

[9] **Other Instruction — Program Fee.** As noted above, thesis and dissertation credits reflect only part of the faculty supervision of graduate work. Graduate students who are not enrolled for thesis or dissertation or other credits, but who are continuing their active status (often to complete theses or dissertations) can register as "Program Fee" students. A Program Fee enrollment generates three credits, and it is appropriate to convert some of this instructional activity to faculty contact hours. Because Program Fee graduate students are not necessarily working actively with faculty toward completion of the thesis or dissertation, however, contact hours generated through the Program Fee are heavily discounted in this report. For this report, one contact hour is generated for each 12 credit hours generated through the Program Fee (equivalent to the rate used for Practica, and compared with the one-to-one rate used for dissertation supervision —). Because it is not possible to link Program Fee credits with individual faculty members, contact hours are shown according to the department or program offering the instruction. Since thesis and dissertation credits can only be supervised by a faculty member, all contact hours generated through Program Fee enrollments are reported on this table.

[10] **Total Contact.** The sum of the contact hours generated in all categories of instruction. According to the design of this report, an estimate of the total hours per week during which faculty are in contact with students for instructional purposes (see "Overview").

[11] **Contact Hours per FTE Faculty.** Total contact hours divided by FTE Faculty (column 10/column 2). According to the design of this report, an estimate of the average hours per week during which each faculty member is in contact with students for instructional purposes (see "Overview").

Contact Hour Rates by Instructional Category

Type of Instruction	Credit hours needed to generate one contact hour
Lecture	1*
Lab/Discussion	1*
Independent Study	6
Practica	12
Thesis	2
Dissertation	1
Program Fee	12

*Contact hours for lecture courses and lab and discussion sections are based on actual scheduled clock hours, plus .167 hours per class session. For courses scheduled "by arrangement," one credit hour generates one contact hour.

APPENDIX D

Response of the University of Massachusetts at Amherst

The Senate Post Audit and Oversight Committee's review of faculty workload measures raises important questions for all public colleges and universities in Massachusetts. It is, in fact, part of a national trend toward increased understanding of the value and purposes of public higher education. State governments, faced with mounting federal mandates, explosive growth in entitlement programs, and static or eroding tax bases, have been forced to re-examine every aspect of state spending, higher education included. Students and parents, confronting rapid increases in tuition and fees while real incomes are declining, are making new demands for better information on the costs and benefits of a college education. The value of the public's investment in higher education, taken for granted by generations of Americans, is being called into question.

Those questions must be answered. As the chief academic officer of the Amherst campus said in a letter to the Committee during the course of the study, "the state and our students — who pay most of the freight for the University's ongoing activities — need to know what they are getting for their money." Decades ago, billions of dollars were spent in this and other states to build, in many cases almost from the ground up, systems capable of educating the Baby Boom generation. The need was obvious, and relatively few questions were asked about the value of the investment. But times have changed. The demographic tide has been receding since the late seventies, and is only now beginning to flow again. Institutions like UMass/Amherst, constructed with a strong teaching mission, have developed into equally powerful engines for research and economic development. Campuses designed to meet the needs of a body of relatively homogeneous, reasonably well-prepared students now struggle to adapt to the new and different needs of a more diverse and demanding generation. It is appropriate, therefore, to ask how higher education has responded to these fundamental changes.

Extensive Management Systems

But the need to examine how the University meets its mission has been a part of a trend inside the institution, as well. The Committee's study came after an extended period of wrenching change for the University: the deepest state budget cuts in the institution's history; the loss of more than 750 FTE positions, including some 200 faculty; rapid increases in tuition and fees which left student charges at UMass/Amherst second-highest in the nation; and, triggered by all of these other changes, an enrollment decline of 3,500, nearly 15%. The need to accomplish more with fewer resources led to the development of much stronger planning and management capabilities. The Committee notes in its report the "many formal systems in place which collect discrete information about faculty activities, workloads, and productivity." The Committee's Appendix B, "Selected Recent Assessments of Faculty Activity," shows the extensive array of systems and reviews developed over the past decade to provide detailed management information to the Chancellor, Provost, deans and departments, and to meet the accountability requirements of the Board of Regents/Higher Education Coordinating Council, accrediting bodies, and state and federal governments. And as the Amherst campus Provost observed in a letter to the Committee, those systems produce hard data used to make tough decisions, not "reports gathering dust on a shelf." He went on to say, "we invented these management tools because we needed to manage: to reallocate faculty positions and phase out or reduce programs."

It is no surprise, then, that the Committee's report includes many points of agreement. With relatively few exceptions, the Committee's advice to the University is constructive and welcome, and even the few points of disagreement reflect differences of understanding or emphasis rather than fundamental clashes of principle. We focus on the Committee's major findings in detail below.

High Instructional Productivity

The University was encouraged that the Committee's study confirmed the consistently high level of instructional productivity achieved by the UMass/Amherst faculty:

- According to the Committee, the "contact hours" produced by the UMass/Amherst faculty have been higher than the standard set by the American Association of University Professors (the standard selected by the Committee) for each of the four years studied. In the most recent year, the UMass/Amherst faculty performed at a level 18% higher than the AAUP standard.

- Faculty productivity has increased, despite a nearly 15% loss of faculty positions triggered by massive state budget cuts. The Committee's data showed that the increase came in both faculty contact hours and in student/faculty ratios.

- The Committee also found that instruction has remained focused on direct "lecture" type instruction: "faculty contact with students in traditional classroom settings appears to have increased ... despite reductions in the faculty workforce and enrollment."

This is good news. It means that the taxpayers are still receiving a solid return on their investment, and it means that prospective students, who may fear that budget cuts have eroded courses offerings and their opportunity to work with faculty, should be reassured.

Potential for Improvement

With one exception, the only real criticism offered by the Committee had to do with the campus's ability to talk about what it does. After commenting on the campus's many management and assessment systems the Committee nevertheless observes that "their ability to report to the wider world is somewhat limited." We agree. As suggested above, the management tools used to gather information about the faculty were created primarily for internal use, and often under the stress associated with rapid change. Although these systems helped the campus's leadership make the best of a bad situation, they were not designed for reporting to the public. Their effective use requires the expertise and judgment of experienced managers.

And yet, as the Committee states, and as we agree, "it is in the best interest of faculty — and the university as a whole — that policymakers and the legislature understand the instructional, research and public service activities of faculty." Citing the fact that a great portion of state spending is driven by federal mandate or court order, the Committee concludes that "it is in the best interest of the public system of higher education as the largest recipient of 'discretionary' spending ... to be vigilant and effective in addressing the accountability demands of the public."

We take this as we believe it was intended: as friendly advice. The campus will examine the way in which it reports its activities to the "wider world," and will seek to develop the most effective means of communicating the accomplishments of our faculty. This effort will, consistent with the Committee's advice, focus especially on the areas of research and public service. As a result of the many discussions we held with Committee staff, we have already laid out some of the principles which we believe should guide this effort, summarized below ("Next Steps").

It is important to note that the Committee's comments about UMass/Amherst were not intended to single out the campus. As the Committee stated, "the issues raised by this report are in no way particular to the University of Massachusetts at Amherst." The campus's approach to reporting, the Committee found, was "not inconsistent with the practices of other public and private universities." As suggested above, these issues emerge from a much larger trend in higher education nationally. We have the opportunity to make progress in our own way, however, and we believe it is important to take advantage of that opportunity.

One point which requires clarification is the Committee's suggestion that faculty are not accountable for the time they spend on their research and public service activities. "Faculty have great discretion and autonomy over their unscheduled [non-classroom] time," the report states, "a block of time this study discovered is too large to remain unexplained." It is true that faculty are hired to do far more than meet with students during scheduled classes. It is also true that faculty, like other professionals, are expected to manage their own time. But faculty accomplishments in instruction, research and public service — and the time devoted to them — are not "unexplained." Close and careful monitoring of faculty activity in all areas occurs at the departmental level, where the department head and the departmental personnel committee have first-hand knowledge of what faculty members do. The normal administrative processes of the university (annual evaluation, tenure review, promotion, merit pay awards, courseload decisions, etc.) involve close evaluation of faculty activity. This is not generally the kind of information which can be reduced to numbers and published in a report, and it is therefore difficult to find ways in which insights about faculty productivity can be shared with the public. As noted above, we will be working to improve our capabilities in this area. But it is not fair to suggest that because this kind of information cannot easily be made plain to everyone it is therefore known to no one.

The main point on which we take exception with the Committee's report has to do with measuring the quality of what the faculty produces. While the campus's management systems provide extensive quantitative data on faculty workload, especially regarding instruction, the Committee cites what it sees as a lack of comparable qualitative data. This is an important point, and represents the greatest obstacle to fully explaining to the world what occurs on the campus. For the most part, the quality of faculty work is judged by others in the field. Our faculty are hired because they are experts, and only similarly qualified experts can evaluate their performance. As the Provost reported to the Committee during the course of the study:

> As Provost, I can ... note that Prof. Porter wrote a paper on "Cold Crystallization and Thermal Shrinkage of Uniaxially Drawn Poly(Ethylene 2,6-Naphthalate) by Solid-State Coextrusion," but I can't judge whether it was good or bad, was a year in the making or knocked off in an afternoon, pushes back the frontier in the field or restates the obvious. ... Who can? The other people in the field.

It is true in every field. The work of physicists must be judged by people who know physics. The subtleties of medieval history are understood by relatively few. The people of Massachusetts need to be certain that their sons and daughters are learning from people of serious scholarship and accomplishment, but that very often requires that we seek the advice of other experts in the field, both on campus and off. This is how quality is measured for tenure, for program reviews conducted by the state, and for the accreditation process. But these kinds of assessments do not result in a "score" which can be put in a report, and they do not occur every semester or every year. Finding a satisfactory way to report the quality of faculty will require considerable effort and imagination, and it is likely that progress in this area will come more slowly than in others.

Next Steps

The Committee points out that responsibility for "assessing overall faculty productivity" was given to the new Higher Education Coordinating Council (HECC) as part of the legislation that created the new University of Massachusetts system (Chapter 142 of the Acts of 1991). The University will therefore work with HECC to improve reporting systems and increase the effectiveness of communication with state government and the public. In so doing, we will keep in mind the following points, drawn from our experience working with the Committee:

- The emphasis should be at least as much on how we report as on what we report. The Committee received and made use of many reports issued from our regular systems or created at its request, some of which appear as appendices to the Committee report. But even though the Committee found those reports to be sufficient to make substantial judgments about the instructional productivity of the faculty, they would probably mean little without staff analysis and interpretation. We should seek to put data into a form which is as accessible and understandable as possible.

- As the Committee stated, "workload policies at the university level should be broad-based and consistent with the institution's mission." The same is true of workload reporting. While HECC is charged with assessing faculty productivity across all campuses in the public system, the expectations of faculty vary greatly from campus to campus. Even within the University of Massachusetts system faculty engage in substantially different activities, consistent with the differing missions of the campuses. Our reporting systems should make these differences, and the reasons for them, clear.

- Every effort should be made to draw on existing management systems and review procedures. It would be tragic to divert resources from the classroom or other important activities to meet a new reporting requirement if a simpler and cheaper method would yield a comparable result. We note that some states have created substantial "accountability" bureaucracies, without any clear evidence that the effort has improved what actually happens on the campus. It seems likely that the new emphasis on accountability will require some new resources, but the best place to control the cost is in the design of the program.

- We must be certain that we are answering the questions that are actually being asked. Voluminous reports that miss the point are of little value. If the public and the legislature want to know more about our activities, then we should begin by asking them what they want to know, what kinds of information are important and meaningful. Correctly approached, it should be possible to develop a set of "key indicators" which address the important questions as informatively and efficiently as possible.

- As initial, concrete steps, we plan to move in two directions. First, we will examine the information already available (from both management systems and non-statistical sources) and prepare an annual report describing the University's — and especially the faculty's — accomplishments and contributions to the Commonwealth. It would be designed for the general reader who seeks a comprehensive view of the campus's activities. Second, we will take a fresh look at the systems in place for collecting and analyzing data on faculty workload with an eye to increasing the usefulness and relevance of the data. This effort would involve consideration of changes to the Annual Faculty Review which could be proposed to the faculty collective bargaining unit and redesign of the reports drawn from the AFR and other sources. These actions should allow us to improve the quality of both the information available to describe faculty accomplishments and our methods of communicating that information.

The University of Massachusetts has been a key factor in the state's successful transition to the global knowledge-based economy. As the times have changed, so have we, and we look forward to the development of new accountability mechanisms as an opportunity to demonstrate both what the state needs and how we have responded.